# XR-7100

# SERVICE MANUAL

*US Model*
*Canadian Model*

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

| | |
|---|---|
| Model Name Using Similar Mechanism | XR-780 |
| Tape Transport Mechanism Type | MG-70A-83 |

## SPECIFICATIONS

### AUDIO POWER SPECIFICATIONS (US MODEL ONLY)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
13 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 60–20,000 Hz with no more than 1% total harmonic distortion per Car Stereo Ad Hoc Committee standards.

### OTHER SPECIFICATIONS

**Power amplifier section**

| | |
|---|---|
| Outputs | Speaker outputs (sure seal connectors). |
| Inputs | Line inputs (phono jacks) |
| Speaker impedance | 3.2–8 ohms |
| Maximum power output | 25 watts per channel at 4 ohms* (4 channels driven) |
| | * Measured at 14.4 V |

**Cassette player section**

| | |
|---|---|
| Tape | Prerecorded tape cassette |
| Head | Playback head |
| Tape track | 4-track 2-channel stereo |
| Frequency response | 30–18,000 Hz (±3 dB) |
| Signal-to-noise ratio | Dolby NR off: With type II, IV cassette 58 dB (A-weighted) With type cassette 55 dB (A-weighted) |
| Dolby NR effect | More than 8 dB (CCIR/ARM) |
| Wow and flutter | 0.15% (WRMS) |
| Fast winding time | Approx. 100 sec. (with Sony C-60 cassette) |
| Crosstalk | Between channels: better than 30 dB |

**Tuner section**

| | |
|---|---|
| System | FM/AM superheterodyne tuner Computerized quartz-locked synthesizer system |

**FM tuner section**

| | |
|---|---|
| Tuning range | 87.9–107.9 MHz |
| Antenna terminal | FM/AM external antenna connector FM/AM power antenna relay control lead |
| Intermediate frequency | 10.7 MHz |
| Usable sensitivity | 11.2 dBf (75 ohms) |
| Sensitivity at 50 dB quieting | 16.4 dBf (75 ohms) |
| Selectivity | 70 dB at 400 kHz |
| Signal-to-noise ratio | 65 dB (stereo), 68 dB (mono) |
| Harmonic distortion at 1 kHz | 0.3% (stereo), 0.2% (mono) |
| Separation | 35dB at 1kHz |
| Frequency response | 30–15,000 Hz |
| Capture ratio | 2.0 dB |

0 dB = 0.775V (AF)
0 dB = 1μV (RF)

— Continued on page 2 —

# FM/AM CASSETTE CAR STEREO

SONY®

AUD

**AM tuner section**

| | |
|---|---|
| Tuning range | 530-1,620 kHz |
| Antenna terminal | FM/AM external antenna connector<br>FM/AM power antenna relay control lead |
| Intermediate frequency | 450 kHz |
| Sensitivity | 35 μV |

**General**

| | |
|---|---|
| Time display system | 12-hour display |
| Tone controls | Bass ±8 dB at 100 Hz<br>Treble ±8 dB at 10 kHz |
| Loudness (at −30 dB) | +6 dB at 100 Hz<br>+5 dB at 10 kHz |
| Output lead | Power antenna relay control lead (ANT REM)<br>Remote control output lead (REM OUT, AMP REM)<br>Line output lead (LINE OUTPUT) |
| Input lead | Remote control input lead (REM IN)<br>Line input lead (LINE INPUT, AUX INPUT) |
| Power requirements | 12 V DC car battery (negative ground) |
| Dimensions | Approx. 178 × 50 × 168 mm (w/h/d) (7⅛ × 2 × 6⅝ inches) not incl. projecting parts and controls |
| Mounting dimensions | Approx. 178 × 50 × 153 mm (w/h/d) (7⅛ × 2 × 6⅛ inches) not incl. projecting parts and controls |
| Weight | Approx. 1.6 kg (3 lb 9 oz) |
| Accessories supplied | Mounting hardware (1 set)<br>1-ampere fuse (1)<br>10-ampere fuse (1) |

## FEATURES

### Tuner section

- **Memory preset tuning function** allows you to store a total of 18 stations in memory.
- **Precise tuning** is possible with the digital synthesizer system.

### Cassette deck section

- **High quality sound** is obtained in both tape transport direction, equipped with the dual adjust head.

### General

- **4-speaker system operation** is possible with the built-in power amplifiers. (25 W × 4)
- **Easy operation** with the direct function system. You need not manually switch the function between radio reception and tape playback.
- **A graphic equalizer and an auxiliary source such as a TV tuner can be connected** to the built-in amplifier.

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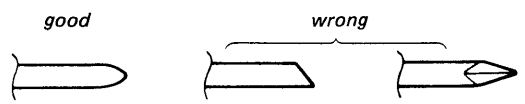
# SECTION 1
# SERVICING NOTE

## 1-1. FLEXIBLE CIRCUIT BOARD REPAIRING

1. Keep the temperature of the soldering iron at 270° ± 10°C during repairing.
2. Do not touch the soldering iron more than 4 seconds or 3 times on the same conductor of the circuit board.
3. Do not apply force on the conductor when soldering or unsoldering.

**Tip of soldering iron**



## 1-2. MELF PARTS (METAL ELECTRODES FACE-BONDING) COMPONENTS

**Warning**

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page. Replace MELF components with the lead type components.

MELF components are soldered directly to the surface of the printed circuit board.

MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors. Note, however, that all MELF resistors are rated at ¼W and ±5%.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

### 1. Structure

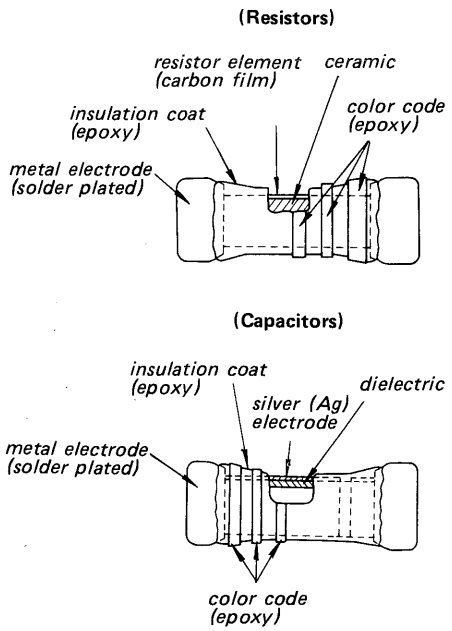
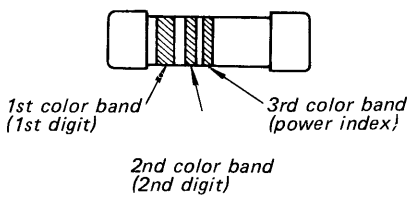
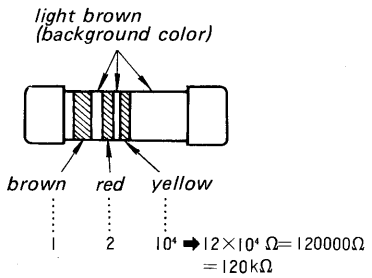



*Fig. 1*

### 2. Color Code Reading




**(Example of Resistor)**




**(Example of Capitor)**

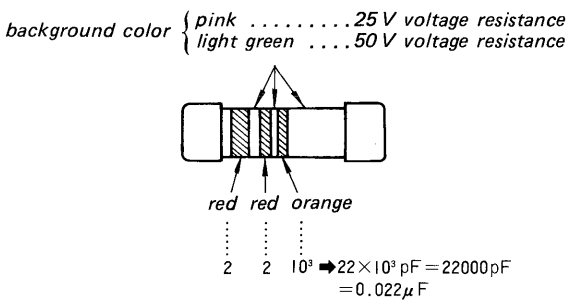



*Fig. 2*

### 3. How to Remove MELF Components and Mount Replacements

Use a soldering iron of at least 40W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

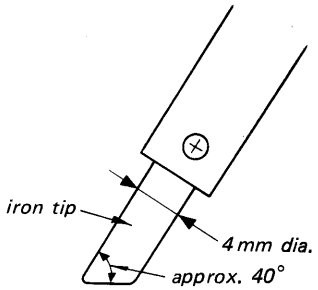



*Fig. 3*

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

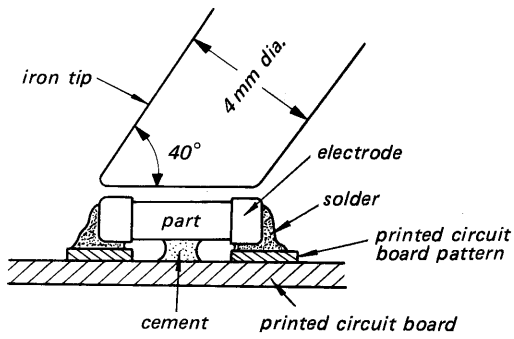



*Fig. 4*

4. Use lead type resistors or capacitors to replace the MELF components.
   These replacements may be mounted either with short leads (see Fig. 5), or by covering a lead with tubing (see Fig. 6).

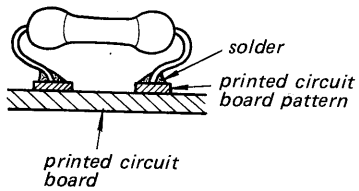
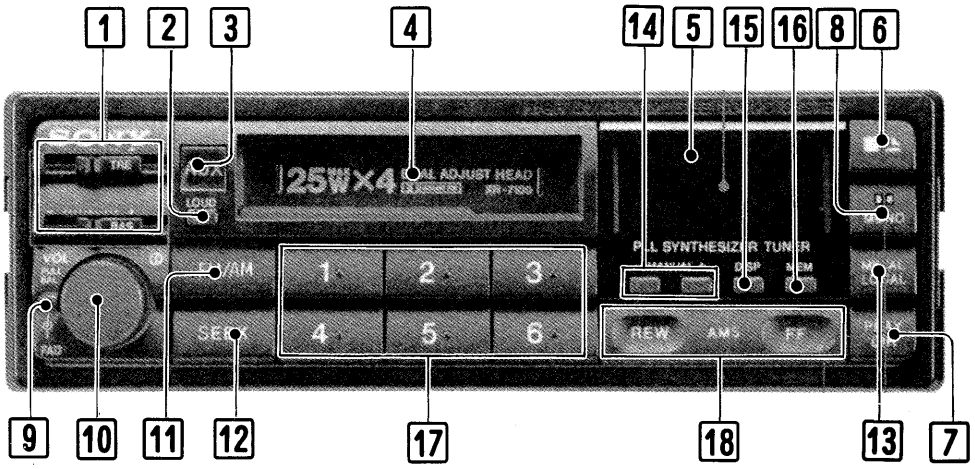



*Fig. 5*

**Note:** *Use 3216 type chip components to repiace the MELF capacitor components.*
*See page 4, 5 for mounting of chip components.*

# SECTION 2
# OUTLINE

## 2-1. LOCATION AND FUNCTION OF CONTROLS




**1 TRE (treble) control**
**BAS (bass) control**

**2 LOUD (loudness) button**
Press to reinforce bass or treble especially when listening at a low volume.
To disengage the button, press it again.

**3 AUX (auxiliary input) indicator**
Lights up while an auxiliary source connected to the REM IN connector of this unit is input.

**4 Cassette insertion door**

**5 Display window**
See page 6

**6 ■⏏ (stop/eject) button**
**When pressed once,** the tape stops.
**When pressed again,** the tape is ejected.

**7 PLAY/DIR (playback/tape transport direction) button**
**When pressed while the tape is in the stop mode,** playback starts.
**When pressed during playback,** the side of the cassette to be played back changes.

**8 DD /MONO (Dolby noise reduction*/monaural) button**

| Operation mode | Function | |
|---|---|---|
| Tape playback | DOLBY button | Press to activate Dolby noise reduction system. |
| Radio reception | MONO button | Press to reduce noise during reception of a weak FM stereo program. The sound will be monaural instead. |

To disengage the button, press it again.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

**9 FAD (fader) control**
Turn to adjust the output volume of the front and the rear speakers.
To reduce rear speakers' volume, turn clockwise.
To reduce front speakers' volume, turn counterclockwise.

**10 Power switch/VOL (volume)/PULL BAL (balance) control**

| Function | |
|---|---|
| Power switch | **Press** to turn on and off the unit. |
| VOL control | **Turn** to adjust the volume. |
| PULL BAL control | **Pull and turn** to adjust balance of the left and the right channel output. |

**11 FM/AM select button**

**12 SEEK button**
Press to search for the desired station.

**13 METAL/LOCAL button**

| Operation mode | Function | |
|---|---|---|
| Tape playback | METAL button | Press when listening to CrO2 (TAPE II) or metal (TAPE IV) tapes. |
| Radio reception | LOCAL button | Press to eliminate interference from adjacent stations during reception of a comparatively strong station. |

To disengage the button, press it again.

**14 MANUAL + / − buttons**
Press to tune in the desired station manually.

**15 DISP (display) button**
Press to change the display to the time display during radio reception.
Press again to disengage the button.

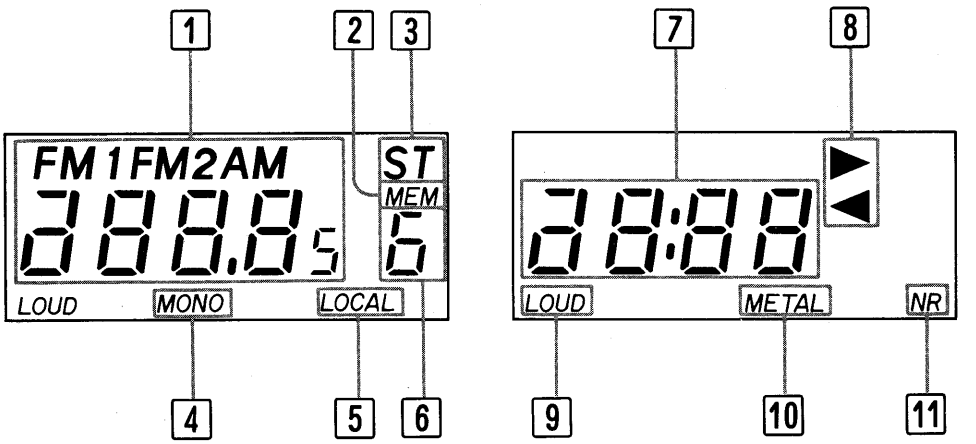
**16 MEM (memory) button**
Press to memorize the station.

**17 Preset number buttons**

**18 AMS (Automatic Music Sensor)/FF (fast forward)/REW (rewind) button**

| Function | |
|---|---|
| AMS button | Press FF or REW once during playback to locate the beginning of a selection. (The "AMS" indication blinks.) |
| FF/REW button | Press FF or REW twice during playback for fastwinding. |

Display window




**During radio reception**

**1 Band and frequency indicators**
**2 MEM (memory) indicator**
Lights up when the MEM button is pressed.
**3 ST (FM stereo) indicator**
Lights up when an FM stereo program of sufficient signal strength is tuned in.
**4 MONO indicator**
Lights up when the ◻◻ /MONO button is activated during radio reception.
**5 LOCAL indicator**
Lights up when the METAL/LOCAL button is activated during radio reception.
**6 Preset number indicator**
Shows the selected preset number.

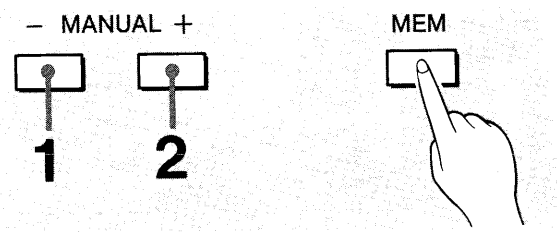
**During tape playback**

**7 Time display**
**8 Cassette side indicator**
▶: The side facing upward is being played back.
◀: The side facing downward is being played back.
**10 METAL indicator**
Lights up when the LOCAL/METAL button is activated during tape playback.
**11 NR indicator**
Lights up when the ◻◻ /MONO button is activated during tape playback.

**During radio reception and tape playback**

**9 LOUD (loudness) indicator**
Lights up when the LOUD button is activated.

## 2-2. HOW TO SET THE CLOCK




**1 Set the hour digits.**
While pressing MEM, press MANUAL – repeatedly.

**2 Set the minute digits.**
While pressing MEM, press MANUAL + repeatedly.

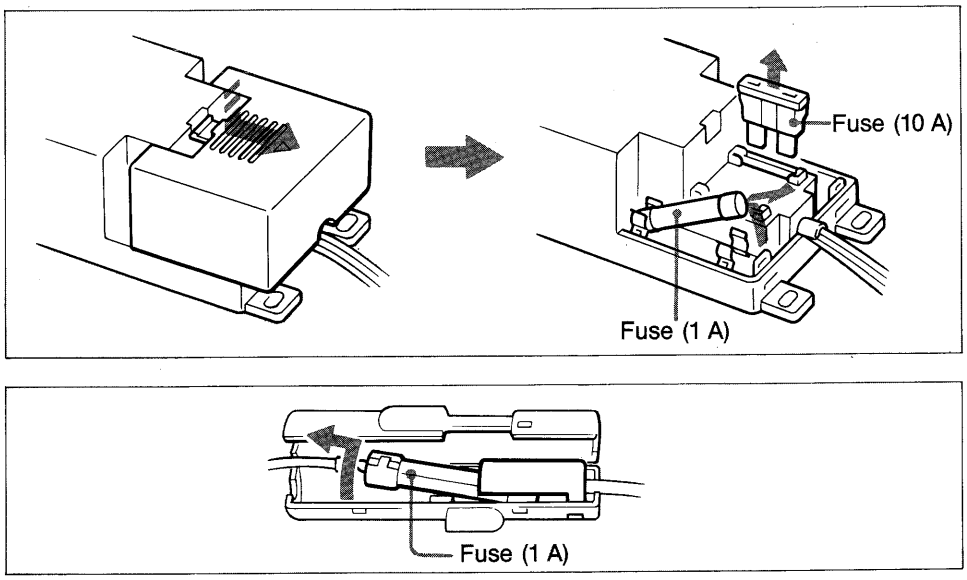
The digits are advanced in sequence. To advance them rapidly, keep + or – pressed.

**When you set minute digits**
"00" comes after "59". The hour digits do not change then.

**To adjust to zero second**
**Example:** To set to 9:00 precisely
1 Set the time to 9:59.
2 As soon as it becomes nine o'clock, press the MANUAL + button while pressing the MEM button.
(Synchronize with the time tone of a radio program, etc.)

## 2-3. HOW TO REPLACE THE FUSE

If the fuse blows, check the power connection and replace the fuse.

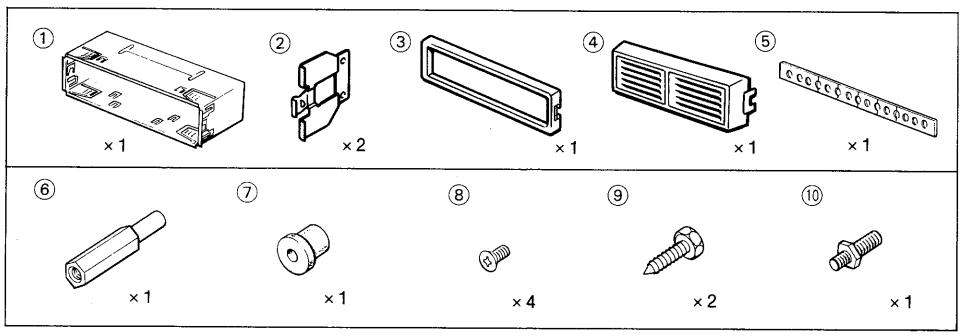



**Warning**
Use only a 10 ampere fuse and a 1 ampere fuse.
Use of a higher amperage fuse may cause serious damage.

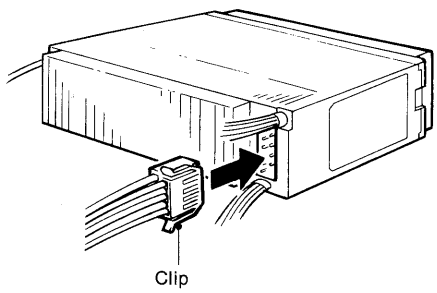
## 2-4. INSTALLATION

### SUPPLIED MOUNTING HARDWARE

The numbers in the list are keyed to those in the instructions.



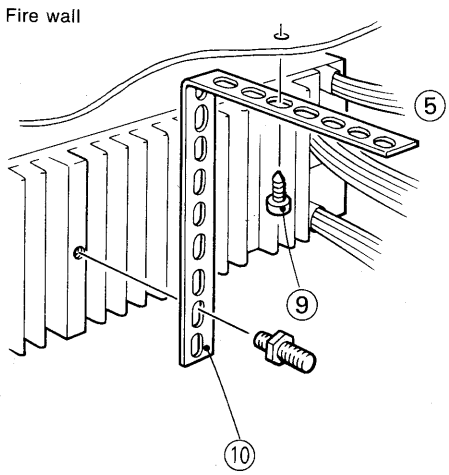

### POWER CORD ATTACHMENT



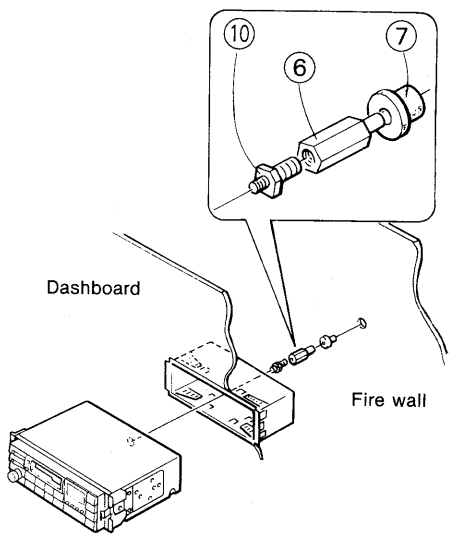

To remove, push in the clips, and pull it out.

### TO SUPPORT THE UNIT

**Example 1**

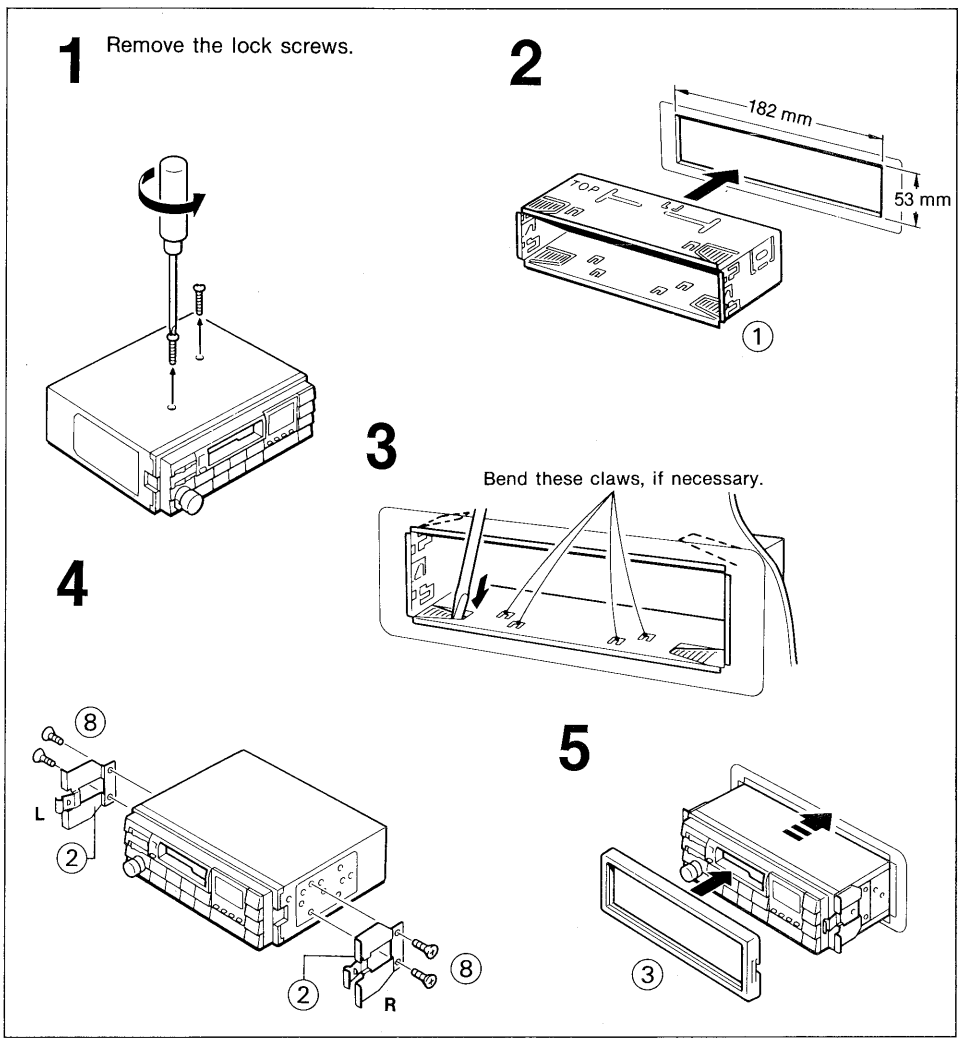



**Example 2**

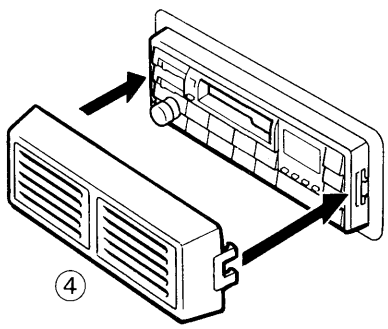


## BASIC INSTALLATION

Use the mounting hardware supplied with the unit.

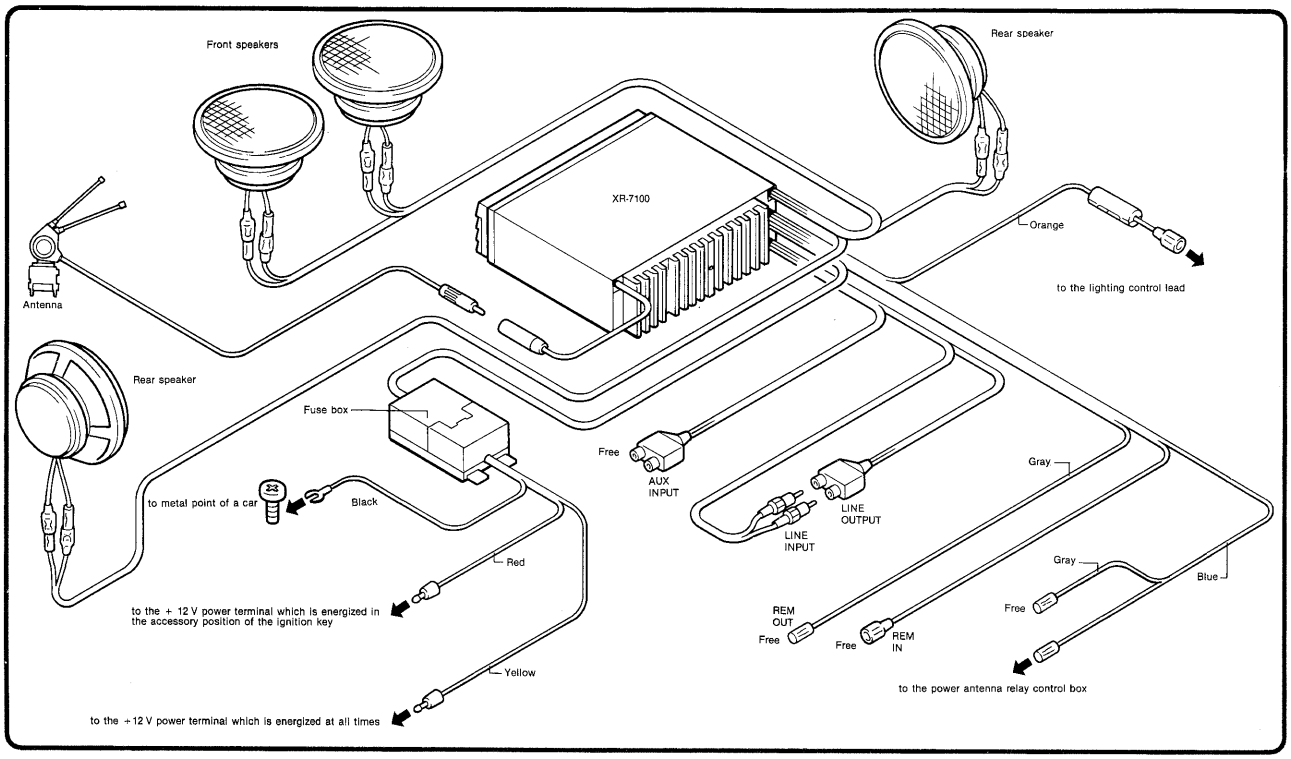



## TO LATCH THE PART ④

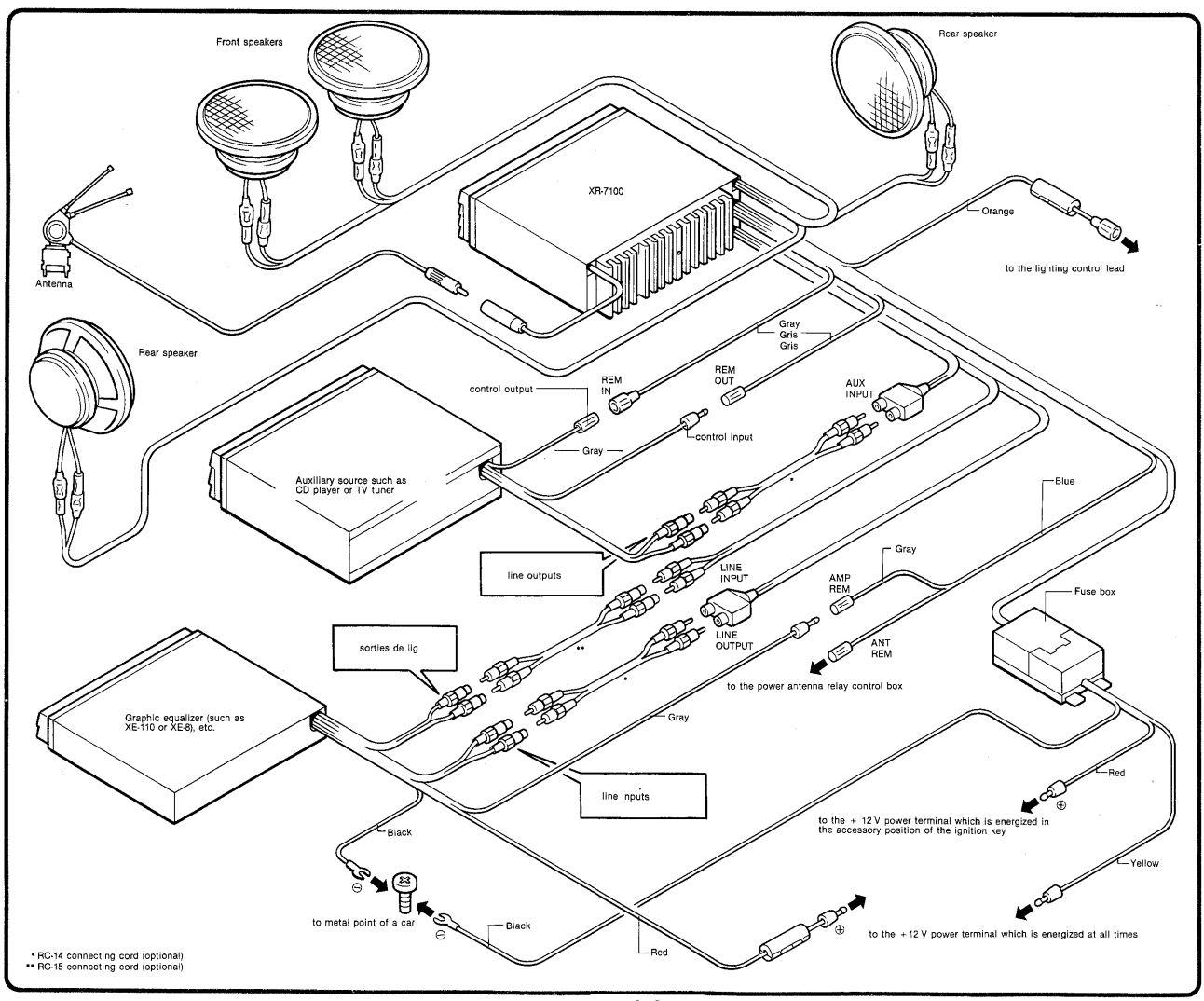


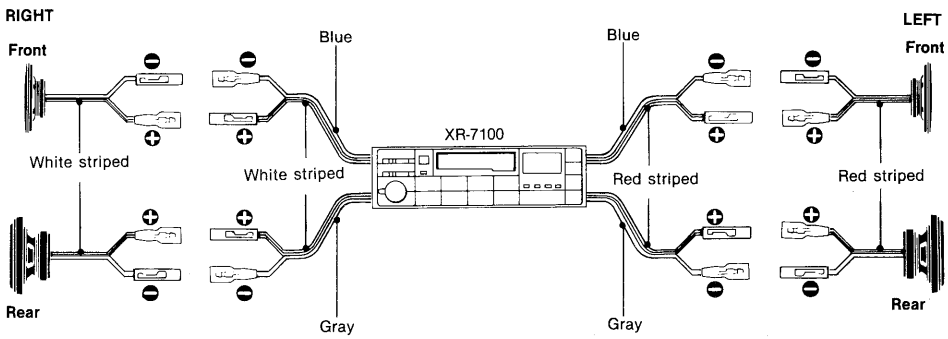

This prevents your car setereo set from being stolen.

## 2-5. CONNECTIONS
## BASIC CONNECTION




## ENHANCED SYSTEM CONNECTION






## CAUTION

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal. It will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**
- **In "BASIC CONNECTION", be sure to connect the LINE INPUT and LINE OUTPUT connectors.** Otherwise, sound will not be heard.

## SPEAKER CONNECTION

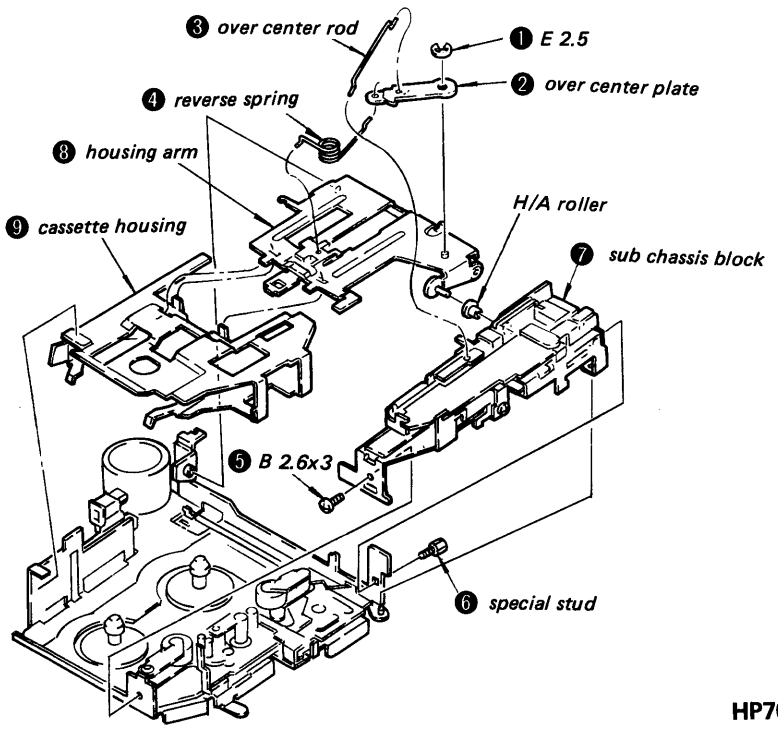
**Notes on speaker connection**

- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the right speaker with that of the left speaker.
- Do not attempt to connect the speakers in parallel.

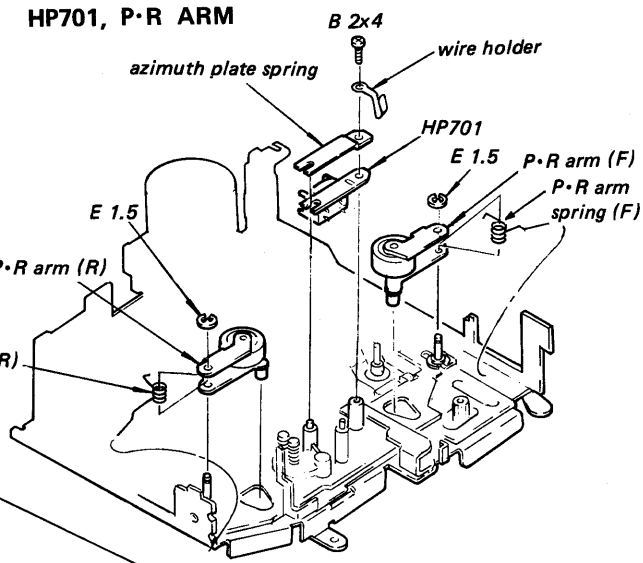
# SECTION 3
# DISASSEMBLY

- Follow the disassembly procedure in the numerical order given.

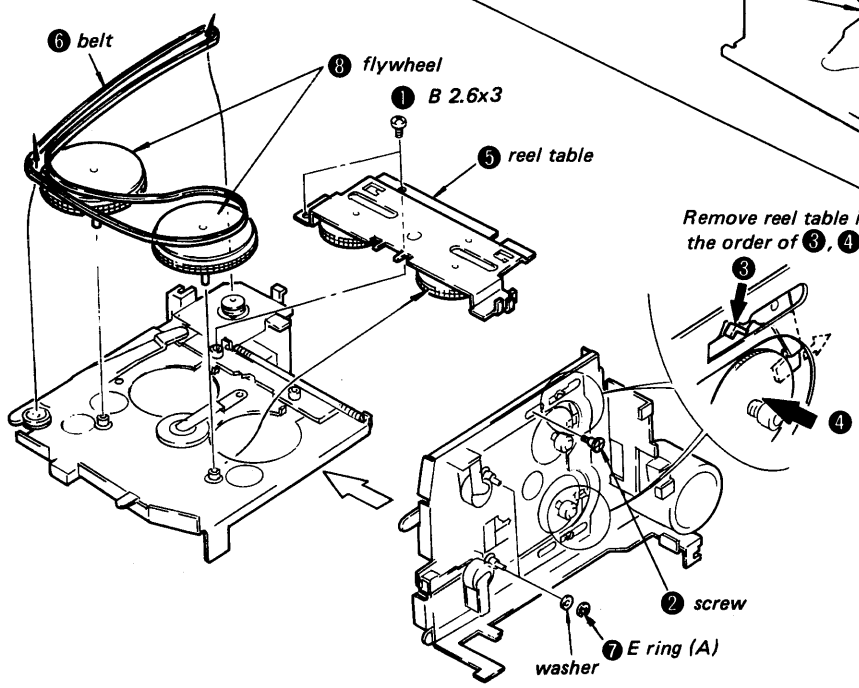
## 3-1. SUB CHASSIS BLOCK




## HP701, P·R ARM




## 3-2. REEL TABLE, FLYWHEEL



# SECTION 4
# CIRCUIT DESCRIPTION

## [IC201 (μPD1708AG-690]

μPD1708AG-690 is a 4 bit C-MOS microprocessor for digital tuning, and contains a prescaler which operates up to 150MHz, a PLL and LCD driver on one chip.

### 1. Outline of Functions

**(1) Reception frequencies, Channel space, Reference frequencies, Intermediate frequencies**

| Destination | Band | Frequency range | Channel space | Reference frequency | Intermediate frequency |
|---|---|---|---|---|---|
| U.S.A. | FM | 87.9 – 107.9 MHz | 200 kHz | 25 kHz | 10.650, 10.700, 10.750 MHz |
| | AM | 530 – 1,620 kHz | 10 kHz | 10 kHz | 450 kHz |
| Japan | FM | 76.0 – 90.0 MHz | 100 kHz | 25 kHz | 10.650, 10.700, 10.750 MHz |
| | AM | 522 – 1,629 kHz | 9 kHz | 9 kHz | 450 kHz |
| Other | FM | 87.5 – 107.9 MHz | 50 kHz | 25 kHz | 10.650, 10.700, 10.750 MHz |
| | AM | 531 – 1,611 kHz | 9 kHz | 9 kHz | 450 kHz |

**(2) Radio Functions**

1) Auto tuning
   - –Scan up: Receives for 5 seconds on each scanned frequency.
   - – Seek up: Stays at the frequency first received.
2) Manual tuning
   - – Manual up/down: Tuning by step and fast tuning with push switch.
3) Preset memory call
   - – U.S.A.: Capable of preset for 6 stations each in FM1, FM2 and AM.
   - – Japan: Capable of preset for 6 stations each in FM and AM.
4) LOCAL/DX control output.
5) MONO/STEREO control output.
6) Stereo display.

**(3) Tape Functions**

1) Direction display
2) METAL control output
3) DOLBY control output
4) AMS control output

**(4) Clock Function**

12 hour display, colon flashes in one second cycles.

**(5) Other Functions**

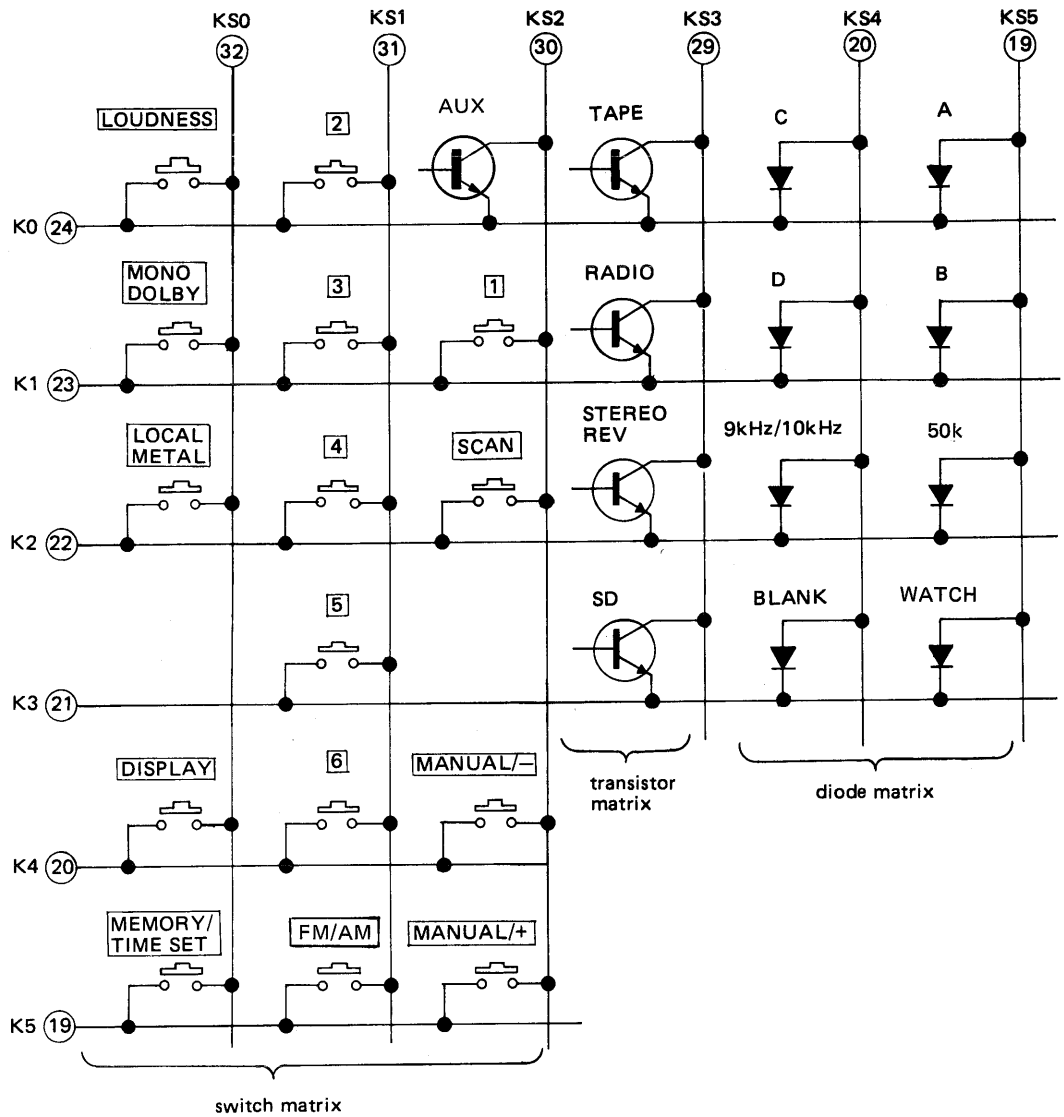
1) LOUDNESS control output
2) Key acknowledge output

## 2. Pin Functions

| Pin No. | Symbol | IN/OUT | Function |
|---|---|---|---|
| 1–4<br>34–52 | LCD1–LCD23 | OUT | LCD segment signal output pin. |
| 5, 6 | COM1, COM2 | OUT | LCD common signal output pin. |
| 7, 33 | $V_{DD}$ | | Power supply pin. Pins (7) and (33) are connected inside the IC. |
| 8 | FM | IN | FM local oscillation input pin. |
| 9 | AM | IN | AM local oscillation input pin. |
| 10 | GND | | Ground. |
| 11, 12 | EO1, EO2 | OUT | PLL error output pin. Outputs "H" when the divided local oscillation frequency is higher than reference frequency, and low when it is lower. |
| 13 | CE | IN | Device selection signal input pin. "H" when ACC is ON. |
| 14 | NC | | Not used |
| 15, 16 | XI, XO | | Crystal oscillator connection pin. (4.5MHz) |
| 17 | MUTE | OUT | Muting signal output pin. Outputs "H" during TAPE/RADIO switching, when frequency changes and during band switching. |
| 18 | KEY ACK | OUT | Key acknowledge output. When a valid key functions, outputs "H" for about 44msec to turn the buzzer on. |
| 19<br><br>20 | KS5-K5<br><br>KS4-K4 | OUT<br>or<br>IN | During reset during power supply input (VDD ON) or from back-up state (CE, "L" → "H"), output key return signal source for diode matrix take-in. Subsequently function as key matrix key return signal input pins. |
| 21–24 | K3–K0 | IN | Key matrix key return signal input pins. |
| 25 | BAND-AMS | OUT | During RADIO: Band switching signal output pin. Outputs "H" for FM, "L" for AM.<br>During TAPE: AMS signal output pin. Outputs "H" for AMS. |
| 26 | LOCAL/$\overline{\text{DX}}$-METAL | OUT | During RADIO: LOCAL/DX signal output pin. Outputs "H" for LOCAL, "L" for DX.<br>During TAPE: METAL signal output pin. Outputs "H" for METAL. |
| 27 | MONO/$\overline{\text{STEREO}}$-DOLBY | OUT | During RADIO: MONO/STEREO signal output pin. Outputs "H" for MONO, "L" for STEREO. Only valid during FM, constantly "L" for AM.<br>During TAPE: DOLBY signal output pin. Outputs "H" for DOLBY. |
| 28 | LOUDNESS | OUT | LOUDNESS signal output pin. Outputs "H" for LOUDNESS. |
| 29 | KS3 | OUT | Transistor matrix key return signal source output. |
| 30–32 | KS2–KS0 | OUT | Switch matrix key return signal source output. |

### 3. Key Matrix

#### (1) Key Matrix Structure




#### (2) Diode Matrix for Initial Setting

There are 5 types of diode matrixes for initial setting, as shown below. These are all read in only when power supply is input (POWER ON RESET) and the CE pin goes from low to high (CE RESET), and after that the diode matrix state is ignored.

- Switches for destination setting: A, B
- Switches for AM band channel plan setting: 9kHz/10kHz
- Switch for selection when CE "L" is displayed: BLANK
- Switches for selecting DOLBY and AMS key valid or invalid: C, D
- Switches for setting FM band intermediate frequency: IF1, IF2

These settings are done by shorting or opening the nodes on the matrix with a diode. (On the following table, "1" indicates shorting by diode, and "0" indicates open.)

**Diode Matrix for Initial Setting**

<table>
<tr><th>Symbol</th><th>Description</th></tr>
<tr><td>A<br>B</td><td>These are switches for destination setting. Setting is as shown below.
<table>
<tr><th>A</th><th>B</th><th>Destination</th></tr>
<tr><td>0</td><td>0</td><td>U.S.A.</td></tr>
<tr><td>1</td><td>0</td><td>Japan</td></tr>
<tr><td>0</td><td>1</td><td>Other</td></tr>
<tr><td>1</td><td>1</td><td>–</td></tr>
</table></td></tr>
<tr><td>9kHz/10kHz</td><td>These switches are for setting AM band channel plan.
<table>
<tr><th>9kHz/10kHz</th><th>Frequency range</th><th>Channel space</th></tr>
<tr><td>0</td><td>530 – 1,620kHz</td><td>10kHz</td></tr>
<tr><td>1</td><td>531 – 1,611kHz</td><td>9kHz</td></tr>
</table></td></tr>
<tr><td>BLANK</td><td>Switch to select display when (13) CE pin goes low.<br>0: Clock display.<br>1: Blank (No display)</td></tr>
<tr><td>C<br>D</td><td>Switches for selecting DOLBY and AMS key valid or invalid.
<table>
<tr><th>C</th><th>D</th><th>DOLBY</th><th>AMS</th></tr>
<tr><td>0</td><td>0</td><td>X</td><td>X</td></tr>
<tr><td>1</td><td>0</td><td>X</td><td>O</td></tr>
<tr><td>0</td><td>1</td><td>O</td><td>O</td></tr>
<tr><td>1</td><td>1</td><td>O</td><td>X</td></tr>
</table>
In the table, "O" is valid, "X" is invalid.</td></tr>
<tr><td>WATCH</td><td>0: NO WATCH<br>1: WATCH</td></tr>
<tr><td>50K</td><td>0: 100kHz STEP } FM BAND<br>1: 50kHz STEP } (AEP Model)</td></tr>
</table>

### (3) Transistor Switch for Mode Switching

Unlike the initial setting switches, these switches are always capable of switching. (In the table, "1" means switch ON, "0" means switch OFF.)

**Mode Switching Transistor Switches**

| Symbol | Description |
|---|---|
| TAPE | Sets RADIO mode or TAPE mode. When TAPE switch is 1, the mode is TAPE regardless of the RADIO switch state. When RADIO switch is 1, the mode is RADIO if the TAPE switch is 0.<br>When both are 0, the mode is clock display. |
| RADIO | |
| STEREO<br>REV | During RADIO mode:<br>Stereo signal input switch. When this switch is 1, "ST" is displayed on the LCD panel. However, "ST" display goes out even if this switch is 1 during clock display and during auto tuning.<br>During TAPE mode:<br>Tape running direction display signal input switch. When this switch is 1, "▶" is displayed on the LCD panel when "◀" is 0. |
| SD | Station detector input during auto tuning.<br>This switch goes 1 within about 50ms after PLL locks. After 1 is detected once, then again 250-375ms later, SD existing is judged. |

[IC701 (TC9312N-040)]

TC9310N-065 is a programmable ROM array LSI for sequence control, and performs mechanism control, muting control and LED control.

### 1. Pin Functions

| Pin No. | Symbol | IN/OUT | Function |
|---|---|---|---|
| 1 | GND | | Ground. |
| 2 | OSC | | Time constant connection pin for internal clock generator. |
| 3 | CL | IN | System clear pin. Reset is done by making this pin go from "L" to "H". For "L", the following state exists:<br>– OSC circuit oscillation stops.<br>– Muting output is high.<br>– All other outputs are low.<br>Also, same state as when this pin is low exists when pin (28) VDD becomes less than 3.8V due to the internal auto clear circuit. |
| 4 | ACC IN | IN | ACC power supply input pin. By inputting ACC power supply, EJECT is performed when the tape is inserted during KEY OFF EJECT and ACC OFF. |
| 5 | TAPE IN | IN | Tape detection input pin. Inputs high when a tape is inserted and detects completion of tape insertion and eject. |
| 6 | OUT SW | IN | EJECT detection input pin. Inputs high during EJECT operation and low when it is completed. This pin detects EJECT completion by pin 5 TAPE IN going low. |
| 7 | $\overline{\text{FWD/REV}}$ | IN | FWD/REV identification input pin. Inputs "L" for FWD, "H" for REV. |
| 8 | $\overline{\text{AMS MODE}}$ | IN | AMS mode selection pin. Inputs "L" for AMS mode.<br>FF, REW switch ON → FF AMS, REW AMS<br>FF, REW switch ON again → FF, REW<br>During "OPEN" or "H" input: FF, REW switch double pressing is invalid (except pin 15 AMS IN input and pin (18) AMS MUTE, pin (23) AMS IND outputs are valid) and for FF, REW switch ON → FF, REW. |
| 9 | $\overline{\text{FF SW}}$ | IN | FF switch input pin. "L" during FF switch ON. |
| 10 | $\overline{\text{REW SW}}$ | IN | REW switch input pin. "L" during REW switch ON. |
| 11 | $\overline{\text{STAND BY}}$ | IN | Stand-by mode selection pin.<br>"L" input: Stop mode for EJECT switch input within 0.3 seconds. EJECT operation after 0.3 seconds or for double pressing.<br>"H" input: Stop mode.<br>"OPEN": EJECT switch double pressing is invalid, and EJECT switch ON results in EJECT operation. |
| 12 | $\overline{\text{EJECT SW}}$ | IN | EJECT switch input pin. "L" during EJECT switch on. This input receives continuously and has high priority, so functions with priority over other inputs. |
| 13 | $\overline{\text{END}}$ | IN | Tape END detection input pin. Inputs 8 pulses "⊓⊓⊓⊓⊓⊓⊓⊓" for 1 reel rotation during PLAY. Judges tape END when "L" for more 0.6 seconds. |
| 14 | $\overline{\text{DIR SW}}$ | IN | PLAY/DIR switch input pin. Inputs " ⊓⊔ " when PLAY/DIR switch is ON. Inputs via one-shot circuit as it is continuously received input. |
| 15 | AMS IN | IN | AMS release signal input pin. Inputs " ⊓⊔ " during AMS detection. |
| 16 | STAND BY IND | OUT | Not used. |
| 17 | TAPE | OUT | Amp control output, tape system power supply control output pin. "H" during TAPE. |
| 18 | AMS MUTE | OUT | AMS muting output pin. Output " ⊓⊔ " during PLAY → FF AMS, PLAY → REW AMS, FF AMS → REW AMS, REW AMS → FF AMS switching. |
| 19 | MUTE | OUT | Audio muting output pin. "H" during direction switching, FF, REW and AMS. |
| 20 | KEY ACK | OUT | Key acknowledge output pin. " ⊓⊔ " when valid key is input, during tape insertion, and during EJECT. |
| 21 | REW IND | OUT | REW LED display output pin. "H" during REW, REW AMS. |
| 22 | FF IND | OUT | FF LED display pin. "H" during FF, FF AMS. |
| 23 | AMS IND | OUT | AMS LED display output pin. "H" during FF AMS, REW AMS. |
| 24 | PLG 3 | OUT | DIR solenoid control output pin. DIR solenoid ON at "H". |
| 25 | PLG 2 | OUT | REW solenoid control output pin. REW solenoid ON at "H". |
| 26 | PLG 1 | OUT | FF solenoid control output pin. FF solenoid ON at "H". |
| 27 | MOTOR | OUT | Motor control output pin. Motor ON at "H". |
| 28 | VDD | | Power supply pin. |

## 2. Modes and Operation

### (1) Reset Operation

Reset operation takes place when pin (3) CL goes from low to high, and during power supply input, when pin (28) VDD goes below 3.8V. When there is a tape inserted during reset, (when pin (5) TAPE IN or pin 6 OUT SW is ON), the operation changes to eject and the tape is ejected. When there is no tape, the mode is OFF.

### (2) OFF Mode

OFF mode is all outputs OFF when no tape is loaded (pin (5) TAPE IN and pin (6) OUT SW are OFF). All key inputs are invalid in this mode. When a tape is inserted in this mode (pin (5) TAPE IN goes ON), rewind is done for about 0.6 seconds to take up tape slack and play begins. When a tape is inserted when pin (4) ACC IN is OFF, the tape slack is taken up, then operation changes to EJECT.

### (3) EJECT Operation

For EJECT operation, the output of pins (24) PLG3 (26) PLG1 goes OFF, and output of pin (19) MUTE and pin (27) MOTOR goes ON. The maximum time for EJECT operation is 5.7 seconds, and when EJECT is not completed (pin (5) TAPE IN, pin (6) OUT SW both OFF) within this time, ER STOP mode begins. After EJECT operation, OFF mode results.

### (4) ER STOP Mode

ER STOP mode is a mode for when EJECT can not be done due to catching in the mechanism, etc., and prevents battery wear by turning all outputs off. During ER STOP mode, it is possible to use the EJECT key to try to EJECT again. When completion of EJECT (pin (5) TAPE IN, pin (6) OUT SW both OFF) is confirmed during ER STOP mode, the mode changes to OFF.

### (5) PAUSE Operation

PAUSE operation occurs when pin (4) ACC IN goes off during PLAY, FF, REW, FF AMS, REW AMS. During PAUSE operation, pin (24) PLG3 and pin (19) MUTE outputs are ON, and other outputs are OFF. The maximum time for PAUSE operation is 5 seconds, and pin (4) ACC IN goes ON within 5 seconds after going OFF and PLAY begins. If it stays OFF for more than 5 seconds, EJECT operation takes place. Also, EJECT operation takes place immediately if the EJECT switch is pressed continuously for more than 1 seconds.

### (6) STOP (STAND-BY) Mode

Stop mode takes place when pin (11) STAND BY input is low and EJECT switch is ON, or when it is "H". During stop mode, pin (24) PLG3 and pin (16) STAND BY IND outputs are ON and all other outputs are OFF. When there is pin (14) DIR SW input during stop mode, PLAY mode begins, and when there is pin (12) EJECT SW input, EJECT operation begins. When pin (4) ACC IN goes off during stop mode, PAUSE operation begins, and when pin (4) ACC IN goes on within 5 seconds, stop mode results, and when off for more than 5 continuous seconds, EJECT operation takes place.

# SECTION 5
# ADJUSTMENTS

## 5-1. MECHANICAL ADJUSTMENTS

No mechanical adjustments applied to this unit.

- Torque Measurement

| Mode | Torque Meter | Torque |
|---|---|---|
| FWD | CQ-102B | 25 – 60 g•cm (0.35 – 0.84 oz•inch) |
| FF | CQ-201A | 50 – 130 g•cm (0.7 – 1.82 oz•inch) |
| REW | CQ-201A | 50 – 130 g•cm (0.7 – 1.82 oz•inch) |
| FWD back tension | CQ-102B | 1 – 5 g•cm (0.014 – 0.07 oz•inch) |

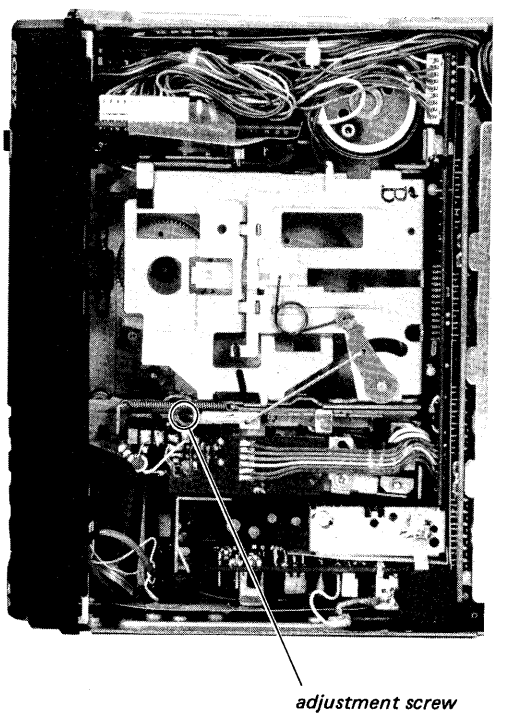
## 5-2. ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Power-supply voltage is +14.4V DC as per Ad Hoc recommendation.
- Switches and controls should be set as follows unless otherwise specified.

PULL BAL control: center click
FADER control: center click
BASS control: center click
TREBLE control: center click
LOUDNESS: OFF
DOLBY NR: OFF
METAL/LOCAL: OFF

**Adjustment Location:**

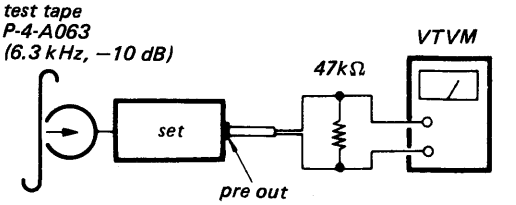



**TAPE SECTION**

**Playback Head Azimuth Adjustment**

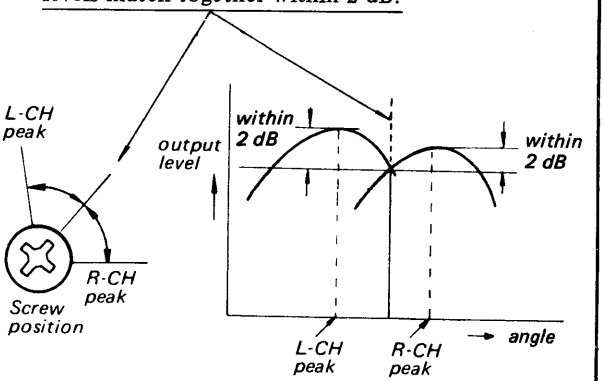
**Procedure:**

1. Mode: forward playback

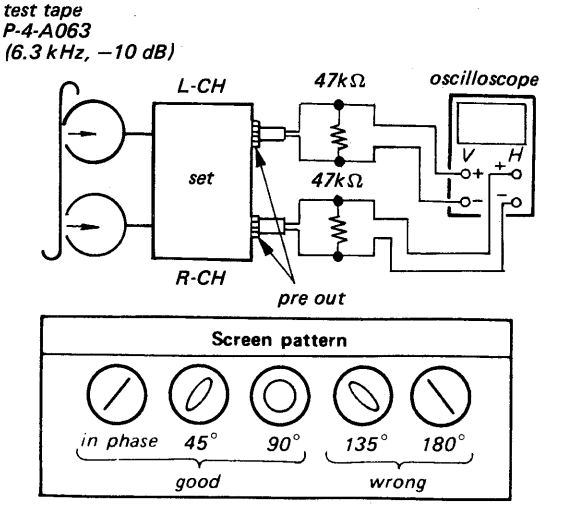



Adjust for forward ( ▶) direction and reverse (◀ ) direction.

2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2 dB.




3. Phase Check
Confirm that phase difference between L-channel and R-channel is within 90°.

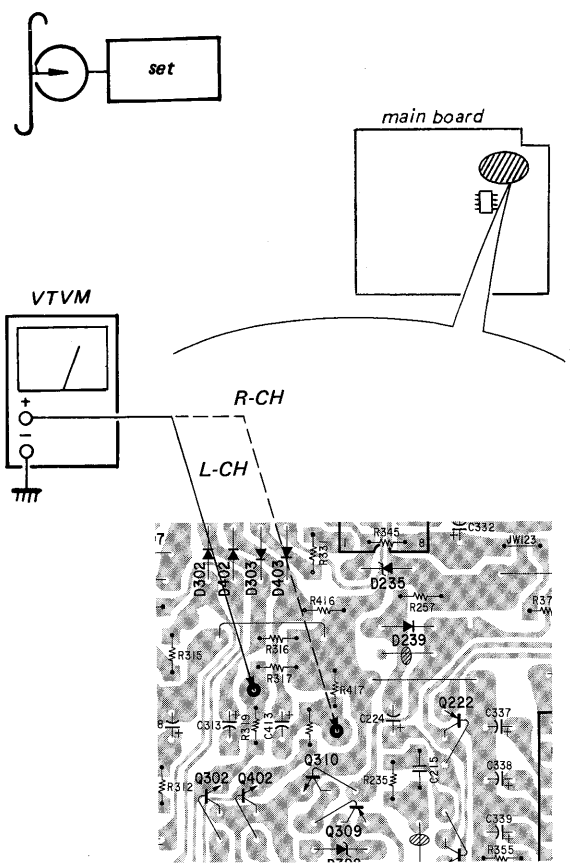



4. Repeat the above adjustment for reverse playback mode.
5. After the adjustment, lock the screw with locking compound.

## Playback Level Adjustment

**Setting:**

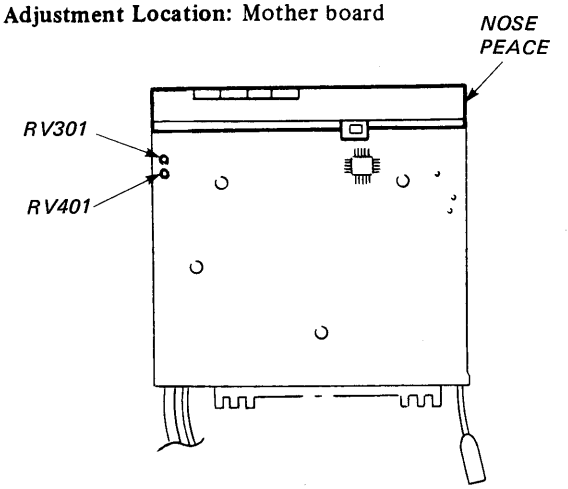
*test tape*
*P-4-L300*
*(315 Hz, 0 dB)*



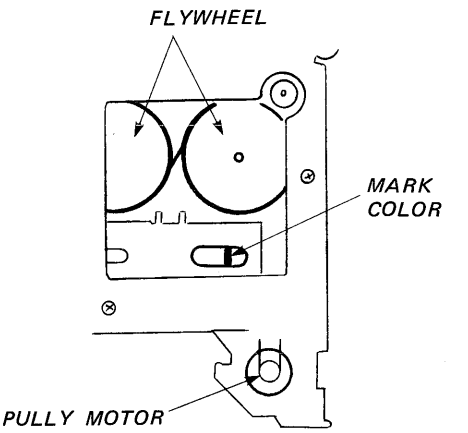

**Procedure:**

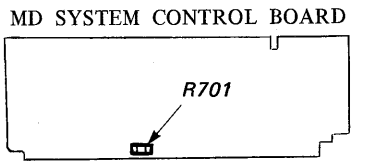
Adjust RV301 (L-CH) and RV401 (R-CH) to obtain –27.7dB (0.319V) reading on VTVM.

**Adjustment Location:** Mother board




## Photo Interrupter Adjustment




| MARK COLOR | Solder bridge R701 |
|---|---|
| BLACK | solder |
| BLUE | unsolder |

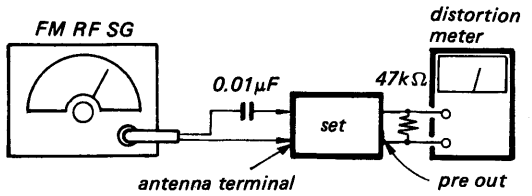
## FM SECTION

The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

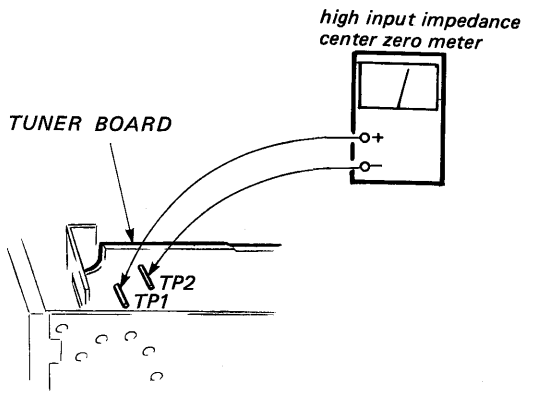
### FM Discriminator Alignment

**Setting:**

BAND: FM MONO




*Carrier frequency:* *98.1 MHz*
*Output level:* *60 dB (1 mV)*
*Modulation:* *1 kHz, 75 kHz deviation (100%)*
*FM board*

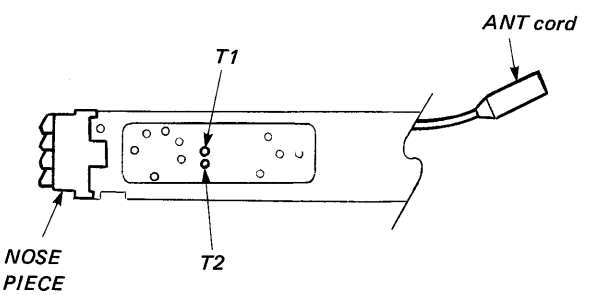



**Procedure:**

1. Slowly adjust the core of T1 to obtain a zero (0) V reading on high impedance center zero meter.
2. Adjust T2 for lowest distortion.
3. Repeat steps 1 and 2 until no further improvement is detected.

**Adjustment Location:**

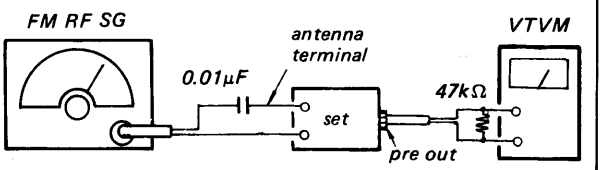
FM board




### FM Stereo Separation Adjustment

**Setup:**

BAND: FM Stereo
Frequency: 98.1 MHz




*Carrier frequency:* *98.1MHz*
*Output level:* *60dB (1mV)*
*Modulation:* *main: 1kHz, 33.75kHz dev.*
*sub: 38kHz, 33.75kHz dev.*
*19kHz pilot: 7.5kHz dev.*

**Procedure:**

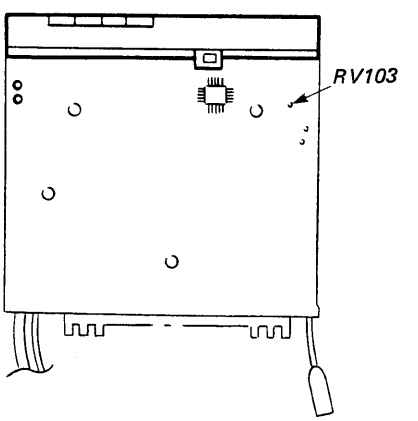
Adjust RV103 for a best stereo separation.
More than 40 dB is good.

| FM stereo signal generator output channel | VTVM connection | VTVM reading (dB) |
|---|---|---|
| L-CH | L-CH | Ⓐ |
| R-CH | L-CH | Ⓑ Adjust RV103 for minimum reading. |
| R-CH | R-CH | Ⓒ |
| L-CH | R-CH | Ⓓ Adjust RV103 for minimum reading. |

L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ

The separations of both channels should be equal.

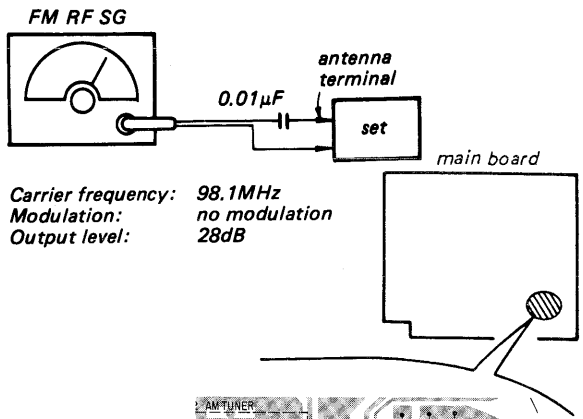
**Adjustment Location:** Mother board



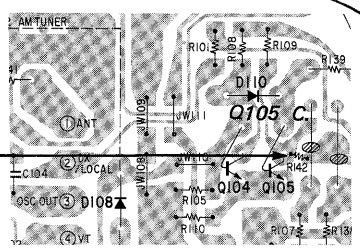
## FM Auto-scan Stop Level Adjustment

**Setup:**

Band switch: FM MONO
Frequency: 98.1MHz



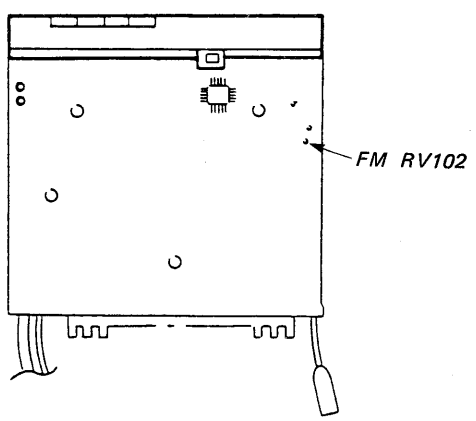

*Carrier frequency:* *98.1MHz*
*Modulation:* *no modulation*
*Output level:* *28dB*




**Procedure:**

1. Tune the set to 98 MHz.
2. Adjust RV102 at the point where the VOM reading changes from low to high.
3. Confirm that the set stops auto-scanning with FM RF SSG output level set at 28 ±1 dB.
   Confirm that the set does not stop auto-scanning at level of (stop level +1) dB.

**Adjustment Location:** Mother board



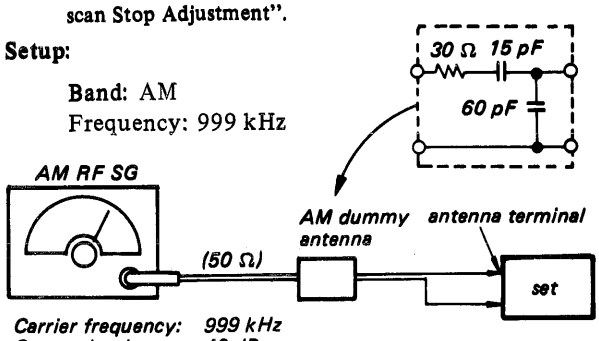

## AM SECTION

## AM Auto-scan Stop Level Adjustment

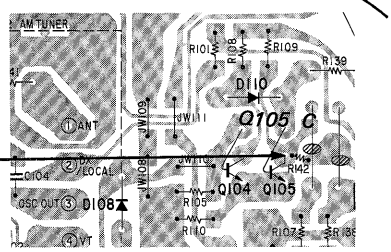
**Note:** Be sure to perform this adjustment after "FM Auto-scan Stop Adjustment".

**Setup:**

Band: AM
Frequency: 999 kHz



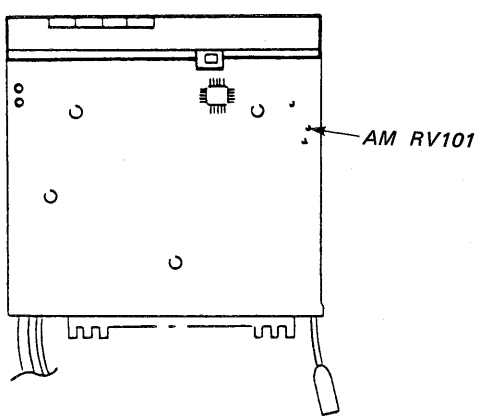

*Carrier frequency:* *999 kHz*
*Output level:* *40 dB*
*Modulation:* *no modulation*



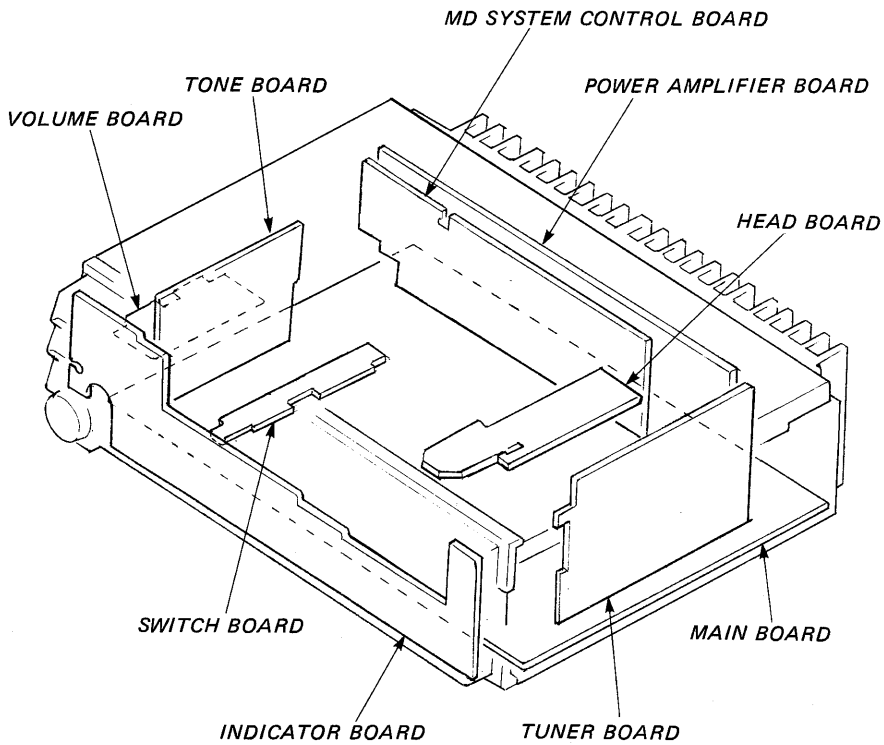

**Procedure:**

1. Tune the set to 999 kHz.
2. Adjust RV101 at the point where the VOM reading changes from low to high.
3. Confirm that the set stops auto-scanning with AM RF SG output level set at 38 ±1dB.
   Confirm that the set does not stop auto-scanning at level of (stop level +1) dB.

**Adjustment Location:** Mother board

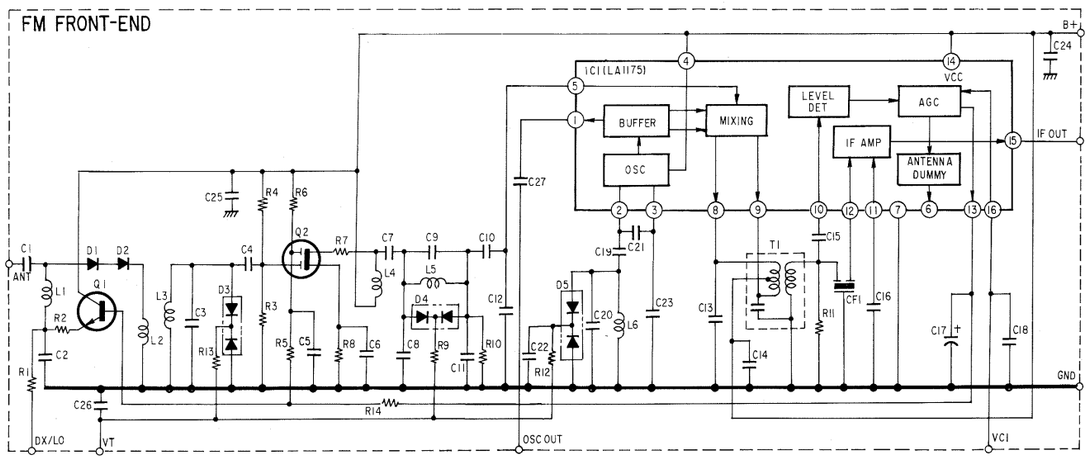


# SECTION 6
# CIRCUIT BOARDS LOCATION

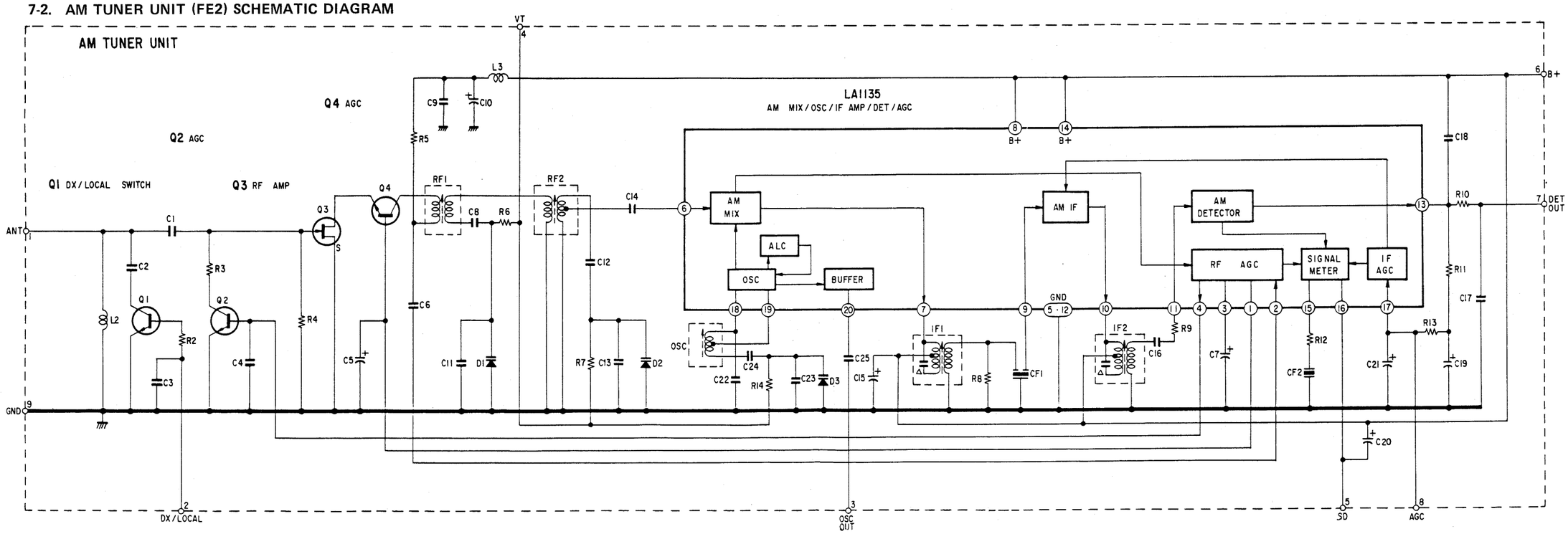


# SECTION 7
# DIAGRAMS

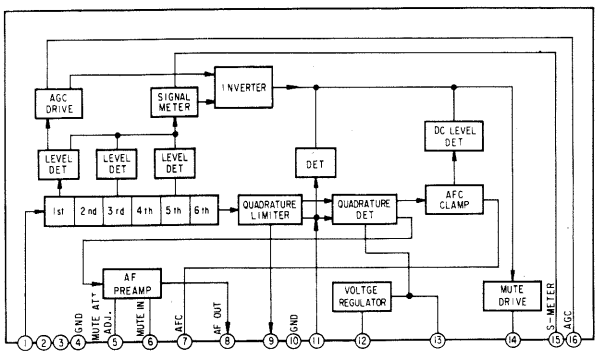
## 7-1. FM FRONT-END (FE1) SCHEMATIC DIAGRAM



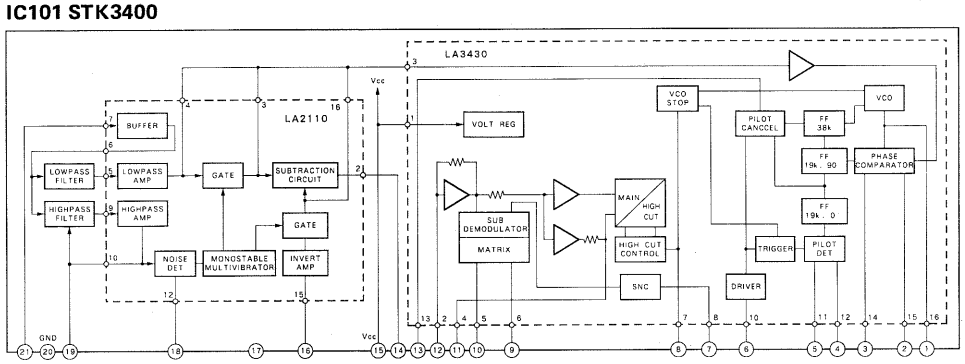

## 7-2. AM TUNER UNIT (FE2) SCHEMATIC DIAGRAM



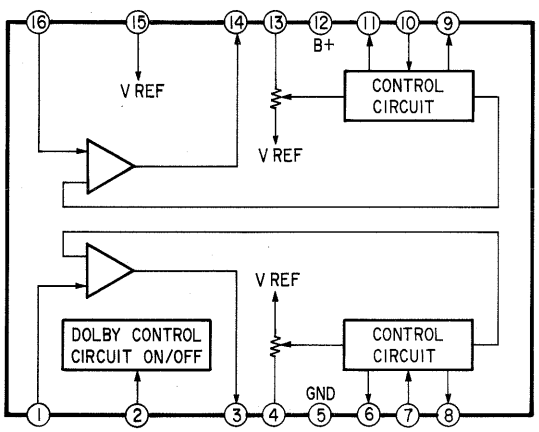
**IC1 LA1140**



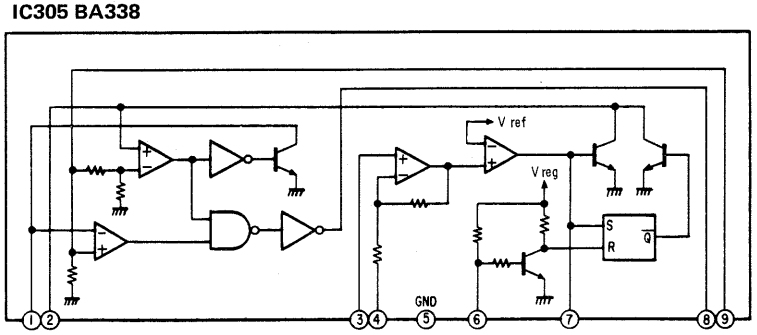

**IC101 STK3400**




**IC302 CX20085**



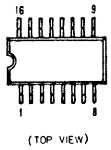

**IC305 BA338**



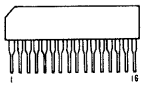
- Semiconductor Lead Layouts

**BA338**

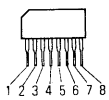
**CX20085**



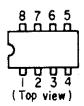

**LA1140**



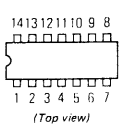

**LA3160**



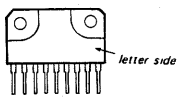

**M5280P**



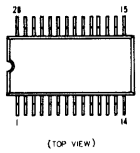

**M54516P**
**TC4069UBP**



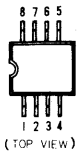

**TA7280P**
**TA7281P**



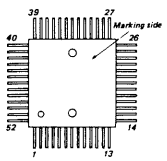

**TC9312N-040**




**μPC4558G2**

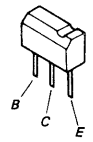



**μPD1708AG-690-00**

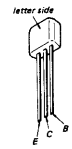



**DTA114ES**
**DTA124ES**
**DTC124ES**
**DTC144ES**
**2SC6345P**
**2SC2839-D**
**2SD1012**

**2SB909M**
**2SD973**
**2SA881**
**2SD1055-R**

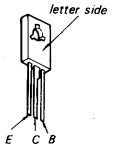



**2SA1175**

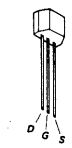



**2SC2001-L**

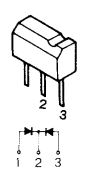
**2SD809-K**



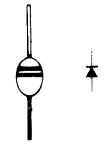

**2SJ105-Y**



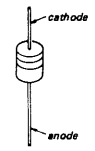

**DAN201**



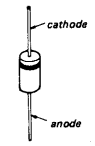

**U05G**



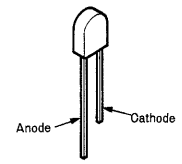
**1SS119**
**RD16ES-B**
**RD5.6ES-B**
**RD5.6ES-B1**
**RD6.2ES-B1**
**RD10ES-B2**
**RD3.6ES-B1**
**RD8.2ES-B**
**HZS6.8N-B2**



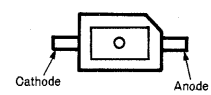

**1SS106**
**10E2**




**BR4868K**




**LN1451C**



## 7-3. MOUNTING DIAGRAM

— Conductor side —

• See page 24 for Circuit Boards Location.
• See page 28 for Semiconductor Lead Layouts.

- ⟷: parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ⊏⊐ : indicates side identified with part number.
- ⊗ : Through hole.
- ▨ : component-side pattern.

### • Semiconductor Location

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|---|---|
| D1 | F-3 | D708 | B-3 | Q203 | G-13 |
| D2 | F-2 | D709 | B-2 | Q204 | G-13 |
| D101 | C-11 | D710 | A-2 | Q205 | H-13 |
| D102 | B-10 | D711 | B-3 | Q206 | H-16 |
| D104 | F-15 | D712 | B-4 | Q207 | H-16 |
| D105 | H-10 | D713 | A-4 | Q208 | H-16 |
| D106 | H-11 | D714 | B-4 | Q209 | G-16 |
| D107 | G-11 | D801 | I-3 | Q210 | H-16 |
| D108 | D-12 | D802 | I-3 | Q212 | D-14 |
| D109 | E-10 | D803 | I-3 | Q213 | E-15 |
| D110 | C-13 | D804 | I-4 | Q214 | D-14 |
| D201 | I-17 | D805 | I-4 | Q215 | E-15 |
| D206 | I-16 | D806 | I-5 | Q216 | D-14 |
| D209 | G-14 | D807 | I-4 | Q217 | D-14 |
| D210 | G-14 | D808 | I-5 | Q218 | D-15 |
| D211 | H-16 | D809 | I-5 | Q219 | C-16 |
| D213 | F-14 | D810 | I-5 | Q220 | B-15 |
| D214 | I-16 | D811 | I-6 | Q221 | C-15 |
| D215 | I-15 | D812 | I-7 | Q222 | D-19 |
| D216 | I-15 | D813 | I-8 | Q224 | E-19 |
| D217 | I-16 | D814 | I-8 | Q225 | E-19 |
| D218 | I-16 | D815 | J-8 | Q226 | F-14 |
| D219 | I-16 | D816 | J-8 | Q227 | G-15 |
| D220 | I-16 | D817 | I-7 | Q229 | C-12 |
| D221 | I-16 | D818 | H-6 | Q230 | B-13 |
| D222 | I-17 | D819 | I-7 | Q301 | H-18 |
| D224 | B-17 | D820 | J-3 | Q302 | D-18 |
| D225 | C-14 | D901 | E-27 | Q305 | G-20 |
| D226 | C-15 | D902 | F-27 | Q306 | F-17 |
| D227 | C-16 | | | Q307 | F-16 |
| D228 | B-15 | IC1 | F-4 | Q308 | F-16 |
| D229 | E-15 | IC101 | F-12 | Q309 | E-18 |
| D230 | C-17 | IC201 | I-14 | Q310 | D-18 |
| D231 | F-14 | IC301 | H-18 | Q311 | G-18 |
| D232 | E-19 | IC302 | E-17 | Q312 | D-16 |
| D233 | E-14 | IC303 | I-20 | Q313 | D-16 |
| D235 | C-19 | IC304 | C-19 | Q314 | B-12 |
| D237 | B-16 | IC305 | F-20 | Q361 | I-26 |
| D238 | G-14 | IC361 | H-24 | Q362 | H-26 |
| D239 | D-19 | IC501 | B-28 | Q401 | H-19 |
| D301 | J-19 | IC502 | B-30 | Q402 | D-18 |
| D302 | C-18 | IC601 | B-26 | Q405 | G-20 |
| D303 | C-18 | IC602 | B-24 | Q461 | H-26 |
| D304 | G-18 | IC701 | B-6 | Q462 | H-26 |
| D305 | D-16 | IC702 | B-5 | Q501 | C-30 |
| D306 | C-16 | IC703 | B-7 | Q701 | C-3 |
| D307 | C-17 | | | Q702 | B-4 |
| D308 | E-18 | PH701 | F-8 | Q703 | A-7 |
| D309 | C-11 | PH702 | F-6 | | |
| D401 | J-19 | | | | |
| D402 | C-18 | Q1 | E-3 | | |
| D403 | C-18 | Q2 | E-3 | | |
| D501 | B-23 | Q3 | E-2 | | |
| D502 | B-30 | Q101 | F-11 | | |
| D701 | C-7 | Q102 | F-13 | | |
| D702 | C-7 | Q103 | F-13 | | |
| D703 | B-8 | Q104 | D-13 | | |
| D704 | B-7 | Q105 | D-13 | | |
| D705 | C-8 | Q106 | E-13 | | |
| D706 | A-8 | Q201 | F-14 | | |
| D707 | B-2 | Q202 | G-14 | | |

【MD SYSTEM CONTROL BOARD】

【MAIN BOARD】

【POWER AMPLIFIER BOARD】

【TUNER BOARD】

【HEAD BOARD】

【SWITCH BOARD】

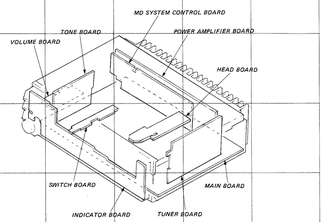
【INDICATOR BOARD】

【FILTER BOARD】

【TONE BOARD】

【VOLUME BOARD】

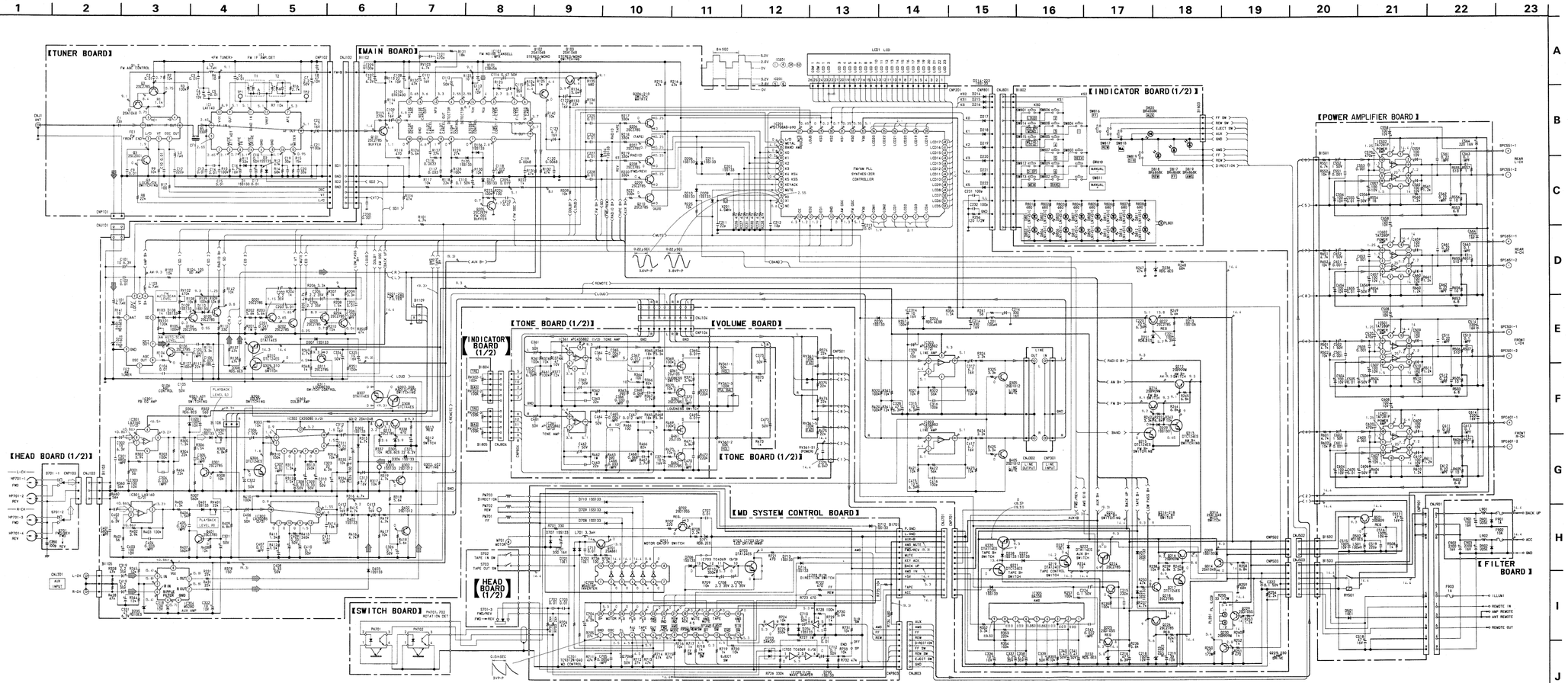
### CIRCUIT BOARDS LOCATION



7-4. SCHEMATIC DIAGRAM

• See page for 25 – 27 FM FRONT-END (FE1) and AM TUNER UNIT (FE2).

XR-7100 XR-7100




Note:

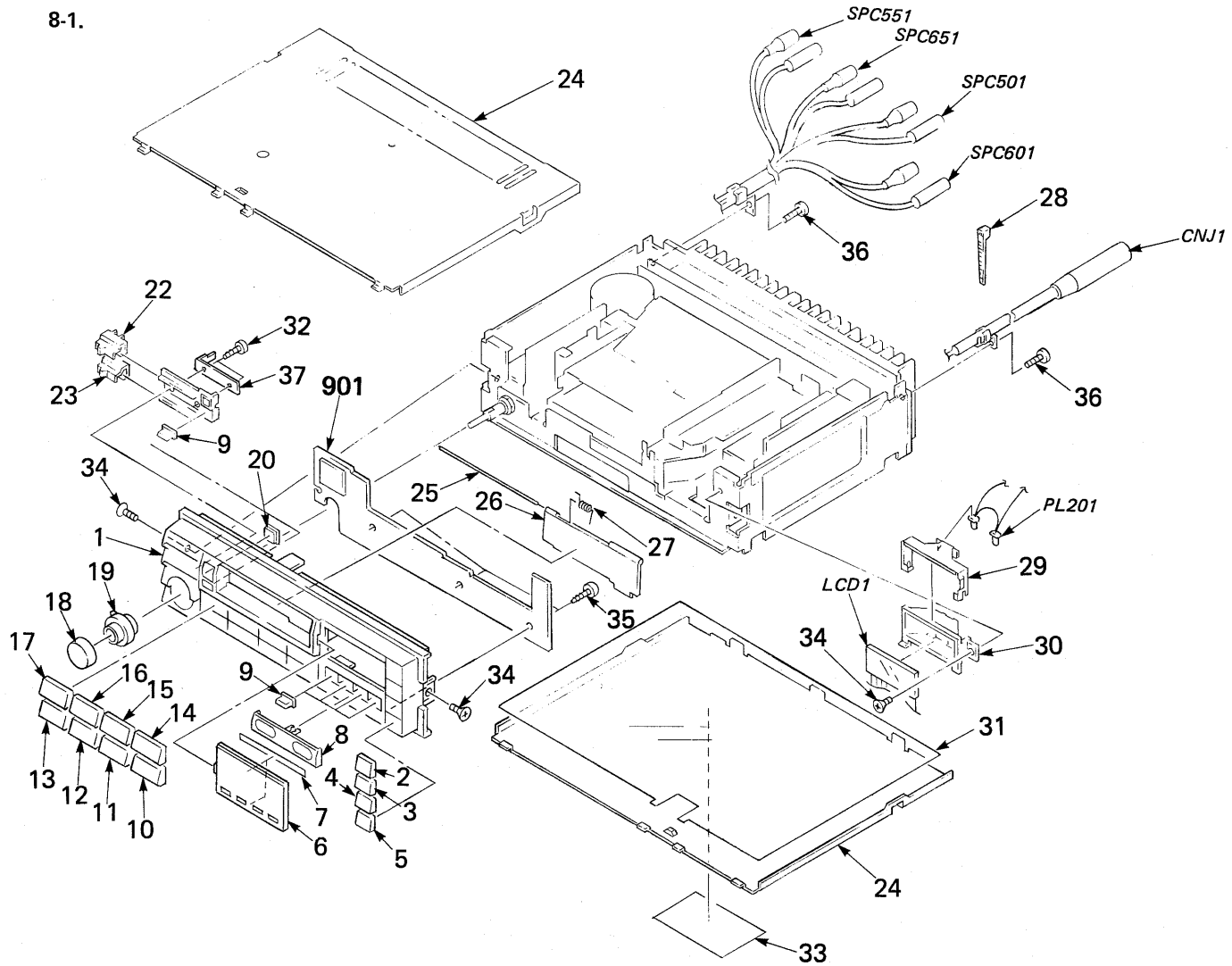
- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⟹ : FM signal puth.
- ⟹ : AM signal puth.
- ⇨ : TAPE PLAYBACK signal puth.
- ▨ : AUX signal puth.
- △ : internal component.
- ═══ : B+ bus.
- ▭ : adjustment for repair.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).
- Power voltage is 14.4 V and fed with regulated dc power supply from BACK UP and ACC terminal.
  No Mark: FM or TAPE
  ( ) : AUX (When applying 14.4V to REMOTE IN terminal.)
  < > : TAPE
  (( )) : AMS
- Waveforms are taken to ground in no-signal mode by using oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Switch

| Ref. No. | Switch | Position |
|---|---|---|
| S701 | FWD/REV | FWD |
| S702 | TAPE OUT SW | OFF |
| S703 | TAPE IN SW | OFF |
| SW801 | LOUD | OFF |
| SW802 | BAND | OFF |
| SW803 | SEEK | OFF |
| SW804 | 1 | OFF |
| SW805 | 4 | OFF |
| SW806 | 2 | OFF |
| SW807 | 5 | OFF |
| SW808 | 3 | OFF |
| SW809 | 6 | OFF |
| SW810 | MANUAL – | OFF |
| SW811 | MANUAL + | OFF |
| SW812 | DISP | OFF |
| SW813 | MEM | OFF |
| SW814 | DOLBY MONO | OFF |
| SW815 | METAL LOCAL | OFF |
| SW816 | FF | OFF |
| SW817 | REW | OFF |
| SW818 | ■/▲ | OFF |
| SW819 | PLAY DIR | OFF |

# SECTION 8
# EXPLODED VIES AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

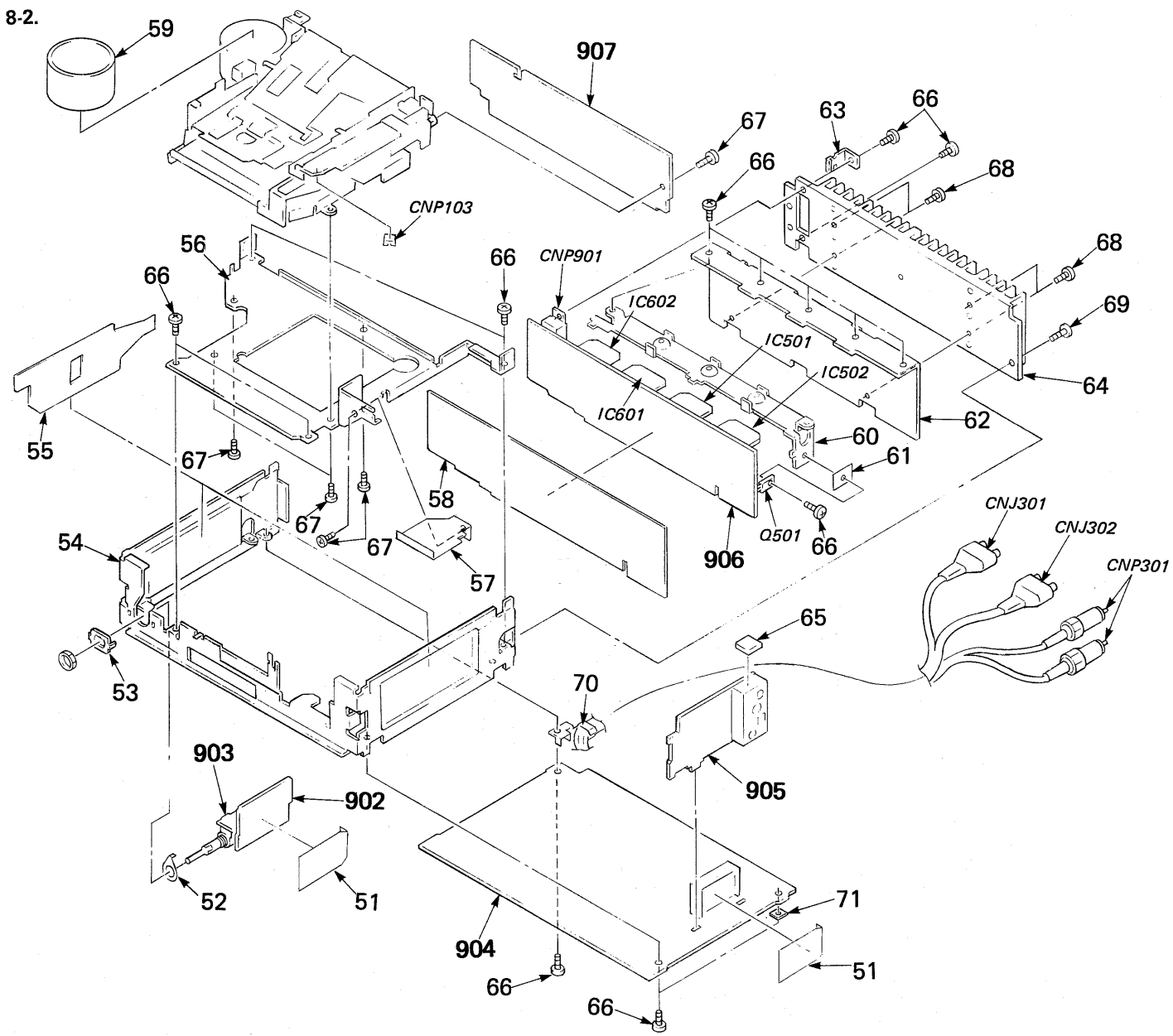
8-1.




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 1 | X-3325-706-1 | NOSE PIECE ASSY | |
| 2 | 3-332-143-01 | BUTTON (C) | |
| 3 | 3-332-144-01 | BUTTON (D) | |
| 4 | 3-332-144-11 | BUTTON (D) | |
| 5 | 3-332-145-01 | BUTTON (E) | |
| 6 | 3-332-166-01 | PLATE, INDICATION | |
| 7 | *3-325-757-01 | SHEET, ADHESIVE | |
| 8 | 3-332-167-01 | BUTTON (F) | |
| 9 | 3-332-129-01 | BUTTON (G) | |
| 10 | 3-332-141-51 | BUTTON (A) | |
| 11 | 3-332-141-41 | BUTTON (A) | |
| 12 | 3-332-141-31 | BUTTON (A) | |
| 13 | 3-332-142-11 | BUTTON (B) | |
| 14 | 3-332-141-21 | BUTTON (A) | |
| 15 | 3-332-141-11 | BUTTON (A) | |
| 16 | 3-332-141-01 | BUTTON (A) | |
| 17 | 3-332-142-01 | BUTTON (B) | |
| 18 | 3-339-409-01 | KNOB, VOL | |
| 19 | 3-332-125-01 | KNOB, FADER | |
| 20 | 3-332-135-01 | GLASS, WINDOW, LCD | |
| 21 | 3-332-150-01 | HOLDER, KNOB | |
| 22 | 3-332-147-11 | KNOB, SLIDE | |
| 23 | 3-332-147-01 | KNOB, SLIDE | |

| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 24 | *3-332-151-01 | COVER | |
| 25 | 3-332-130-01 | SHAFT, C DOOR | |
| 26 | A-3239-772-A | DOOR ASSY, CASSETTE | |
| 27 | 3-332-131-01 | SPRING | |
| 28 | 3-701-748-00 | CLAMP | |
| 29 | *3-332-137-01 | HOLDER, LCD | |
| 30 | 3-332-148-01 | HOUSE, LAMP | |
| 31 | *3-332-136-01 | INSULATOP (A) | |
| 32 | 2-370-905-21 | SCREW (B) (2X5), TAPPING | |
| 33 | *3-332-119-01 | (Canadian)...LABEL, MODEL NUMBER | |
| | *3-332-120-01 | (US).....LABEL, MODEL NUMBER | |
| 34 | 7-682-246-09 | SCREW +K 3X5 | |
| 35 | 7-685-103-19 | SCREW +P 2X5 TYPE2 NON-SLIT | |
| 36 | 7-682-548-04 | SCREW +B 3X8 | |
| 37 | 3-332-175-01 | PLATE, GROUND | |
| 901 | *1-621-943-12 | PC BOARD, INDICATOR | |
| CNJ1 | *1-559-155-11 | CORD (WITH CONNECTOR) | |
| LCD1 | 1-807-808-11 | LIQUID CRYSTAL DISPLAY | |
| PL201 | 1-518-580-31 | LAMP, PILOT | |
| SPC501 | *1-559-153-31 | CORD (WITH TERMINAL)(SPEAKER)(BLU/WHT) | |
| SPC551 | *1-559-153-11 | CORD (WITH TERMINAL)(SPEAKER)(GRY/WHT) | |
| SPC601 | *1-559-153-41 | CORD (WITH TERMINAL)(SPEAKER)(BLU/RED) | |
| SPC651 | *1-559-153-21 | CORD (WITH TERMINAL)(SPEAKER)(GRY/RED) | |

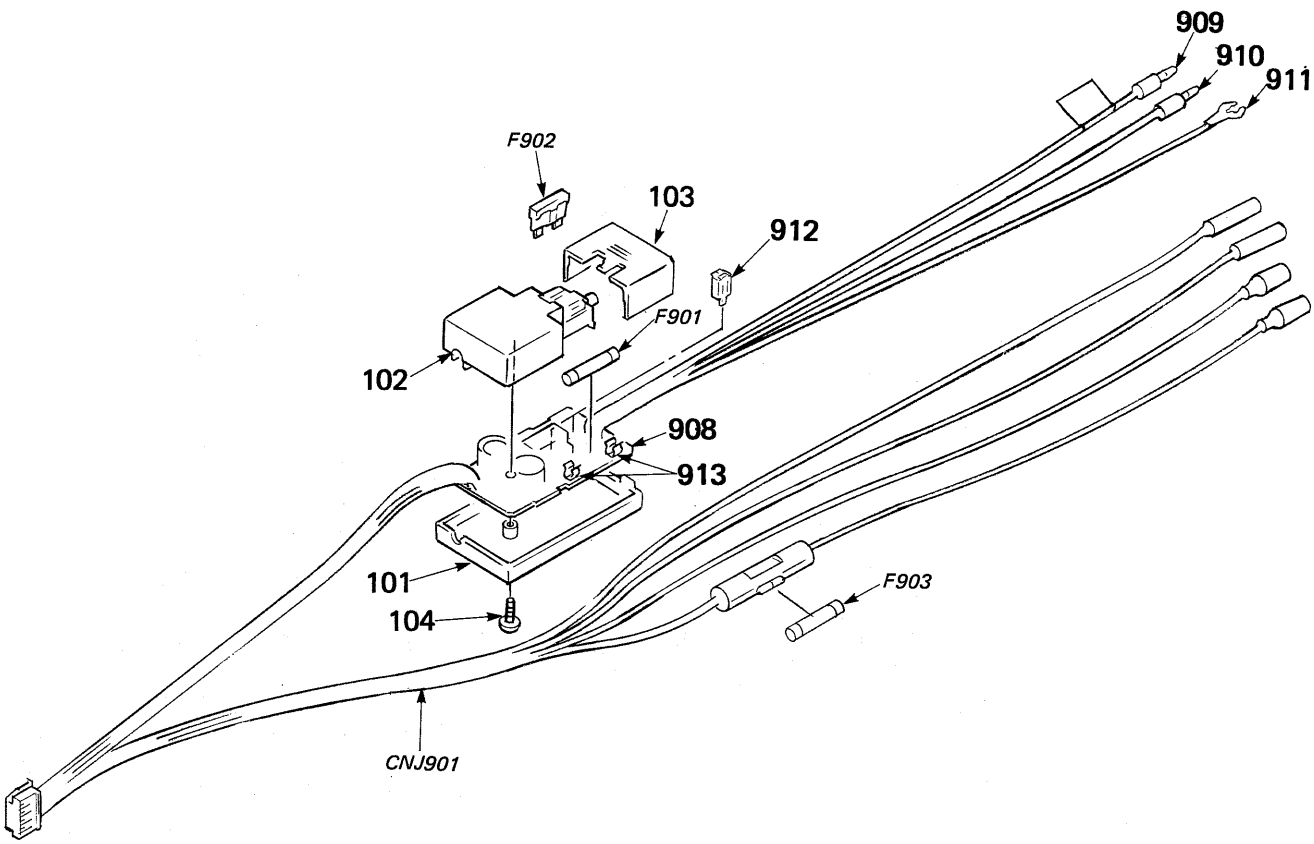
8-2.




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 51 | *3-332-163-01 | INSULATOR (C) | |
| 52 | *3-332-172-01 | PLATE (B), GROUND, PWB | |
| 53 | *3-332-122-01 | WASHER, VR | |
| 54 | *3-332-152-01 | CHASSIS | |
| 55 | *3-332-164-01 | INSULATOR (D) | |
| 56 | *3-332-149-01 | BRACKET, MD | |
| 57 | 3-332-182-01 | PLATE, SHIELD, HD LEAD | |
| 58 | *3-332-123-01 | INSULATOR (B) | |
| 59 | *3-332-170-01 | PLATE (1), SHIELD, MOTOR | |
| 60 | *3-332-140-01 | BRACKET, IC RETAINER | |
| 61 | 3-566-928-00 | SHEET, INSULATING | |
| 62 | *3-332-139-01 | HEAT SINK, SUB | |
| 63 | 3-332-181-01 | CLAMP, SP CORD | |
| 64 | *3-332-138-01 | HEAT SINK | |
| 65 | 9-911-845-XX | CUSHION | |
| 66 | 7-682-547-04 | SCREW +B 3X6 | |
| 67 | 7-621-259-25 | SCREW +P 2.6X4 | |
| 68 | 7-682-549-09 | SCREW +B 3X10 | |
| 69 | 7-682-548-04 | SCREW +B 3X8 | |

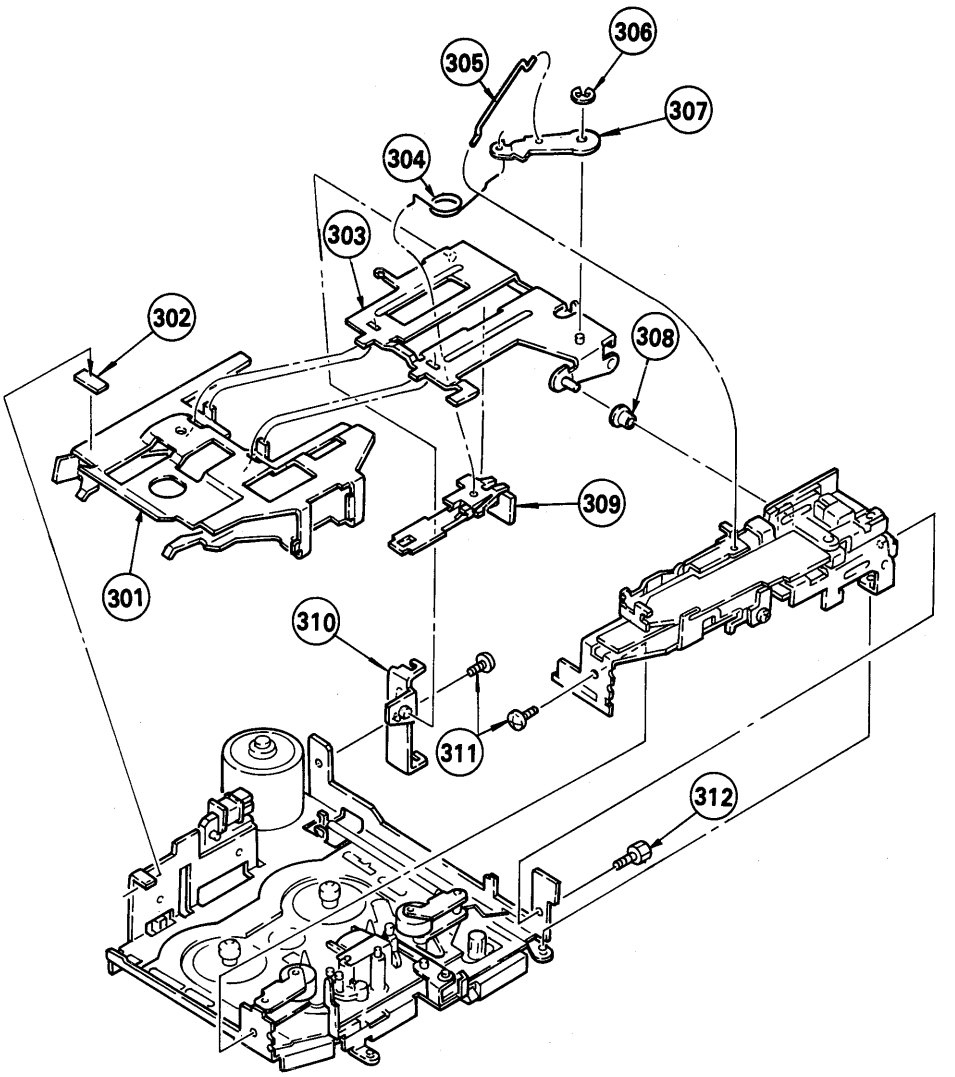
| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 70 | *3-332-127-01 | RETAINER (B), CORD | |
| 71 | 3-332-184-01 | INSULATOR (E) | |
| 902 | *A-3279-665-A | MOUNTED PCB, TONE | |
| 903 | *1-621-942-11 | PC BOARD, VOLUME | |
| 904 | *A-3260-562-A | MOUNTED PCB, MAIN | |
| 905 | *A-3266-380-A | MOUNTED PCB, TUNER | |
| 906 | *A-3270-395-A | MOUNTED PCB, POWER AMPLIFIER | |
| 907 | *A-3279-666-A | MOUNTED PCB, MD SYSTEM CONTROL | |
| CNJ301 | *1-559-148-11 | CORD (WITH JACK)(AUX IN) | |
| CNJ302 | *1-559-149-11 | CORD (WITH JACK)(LINE OUT) | |
| CNP103 | 1-564-013-00 | PIN, CONNECTOR 3P | |
| CNP301 | *1-559-154-11 | CORD (WITH JACK)(LINE IN) | |
| CNP901 | 1-566-448-11 | CONNECTOR | |
| IC501 | 8-759-206-95 | IC TA7280P | |
| IC502 | 8-759-206-94 | IC TA7281P | |
| IC601 | 8-759-206-94 | IC TA7281P | |
| IC602 | 8-759-206-95 | IC TA7280P | |
| Q501 | 8-729-180-92 | TRANSISTOR 2SD809-K | |

## 8-3. FILTER SECTION



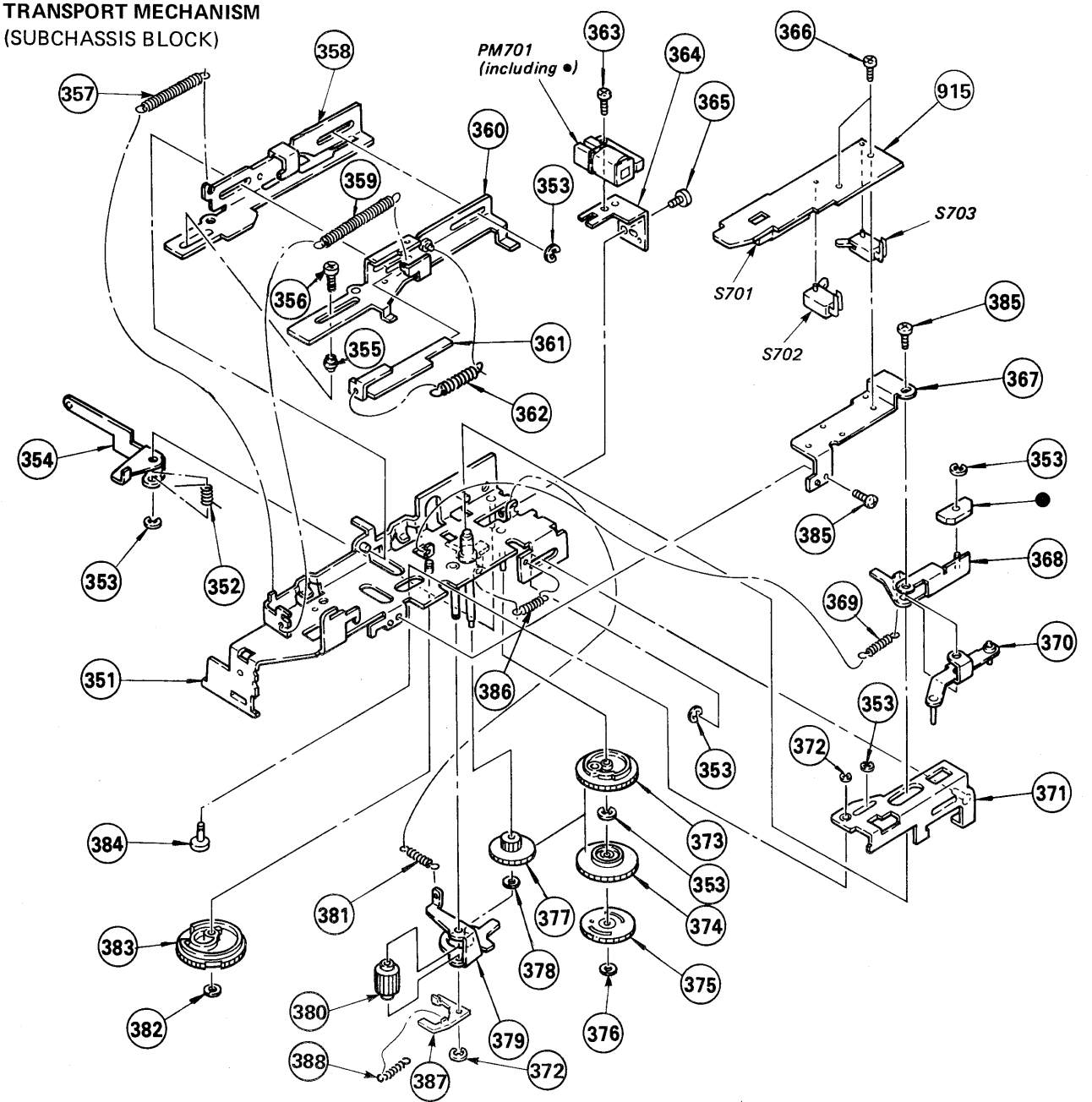

| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 101 | *3-325-773-01 | FILTER (A), NOISE | |
| 102 | *3-325-774-01 | FILTER (B), NOISE | |
| 103 | *3-325-775-01 | FILTER (C), NOISE | |
| 104 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 SLIT | |
| 908 | *1-621-945-11 | PC BOARD, FILTER | |
| 909 | *1-559-151-11 | CORD (WITH TERMINAL) | |
| 910 | *1-559-152-11 | CORD (WITH TERMINAL) | |
| 911 | *1-559-150-11 | CORD (WITH TERMINAL) | |
| 912 | 1-533-193-11 | HOLDER, FUSE | |
| 913 | *1-533-185-11 | HOLDER, FUSE | |
| CNJ901 | *1-559-147-11 | CORD (WITH CONNECTOR) | |
| F901 | 1-532-360-XX | FUSE 1A | |
| F902 | 1-532-877-11 | FUSE (BRADE TYPE) (AUTO FUSE) 10A | |
| F903 | 1-532-360-XX | FUSE 1A | |

## 8-4. TRANSPORT MECHANISM




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 301 | 3-596-584-01 | HOUSING, CASSETTE | |
| 302 | 3-596-560-01 | CUSHION, CH | |
| 303 | 3-596-581-01 | ARM ASSY, HOUSING | |
| 304 | 3-596-565-01 | REVERSE (SPG) | |
| 305 | 3-596-563-01 | ROD, OVER CENTER | |
| 306 | 7-624-118-01 | RING, RETAINING E-2.5 | |
| 307 | *3-596-564-01 | PLATE, CENTER, OVER | |
| 308 | 3-596-561-01 | ROLLER, H/A | |
| 309 | 3-596-585-01 | CATCHER | |
| 310 | *3-596-562-01 | BRACKET | |
| 311 | 7-621-775-00 | SCREW +B 2.6X3 | |
| 312 | 3-596-579-01 | STUD, SPECIAL | |

## 8-5. TRANSPORT MECHANISM
(SUBCHASSIS BLOCK)

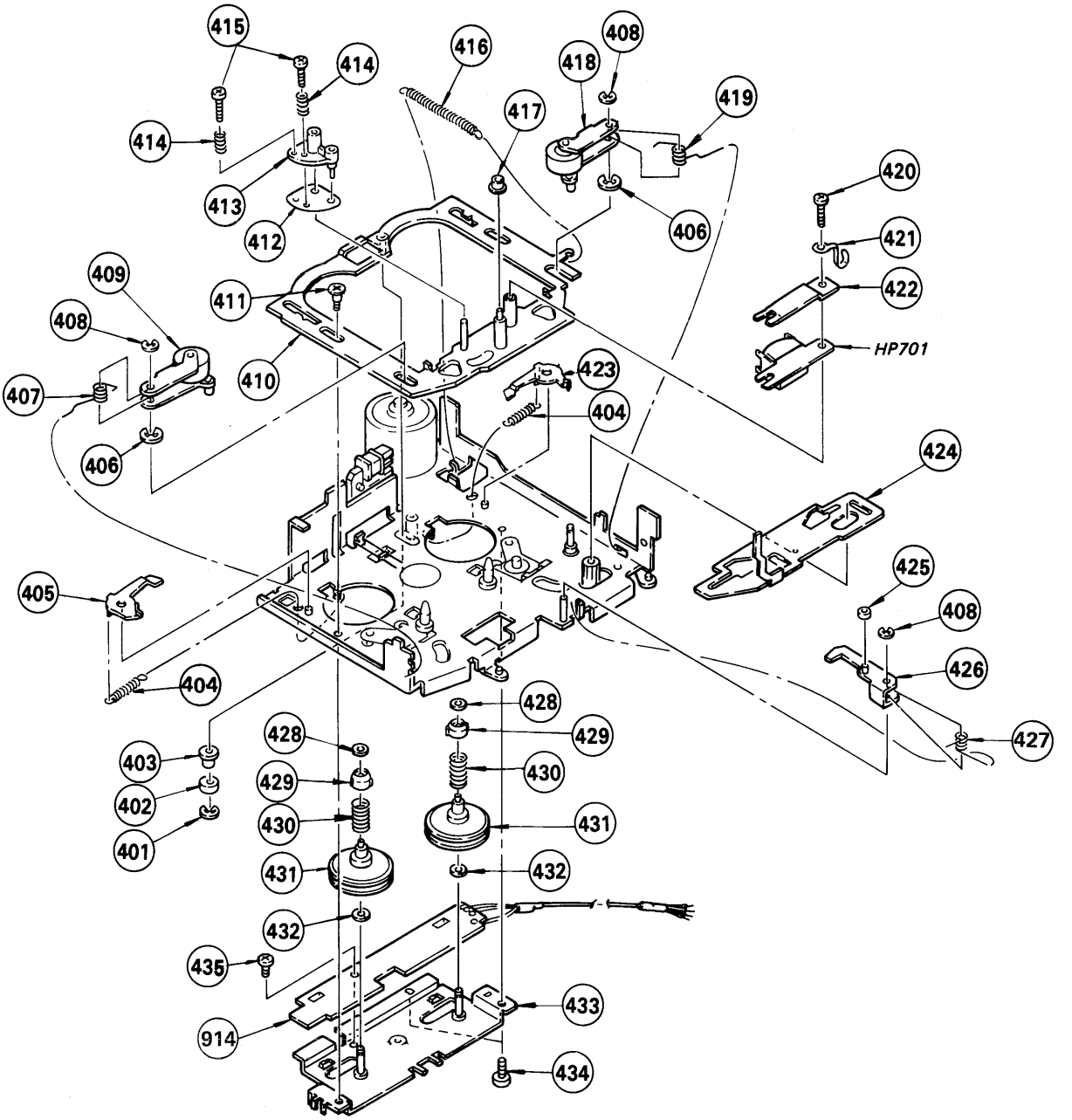



| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 351 | *3-596-547-01 | CHASSIS ASSY, SUB | |
| 352 | 3-596-557-01 | SPRING, TRIGGER PLATE | |
| 353 | 7-624-102-04 | RING, RETAINING E-1.5 | |
| 354 | 3-596-556-01 | PLATE, TRIGGER | |
| 355 | 3-596-568-01 | SPACER | |
| 356 | 7-621-772-20 | SCREW +B 2X5 | |
| 357 | 3-596-567-01 | SPRING, EJ PLATE | |
| 358 | *3-596-566-01 | PLATE, EJ | |
| 359 | 3-596-570-01 | SPRING, RESET PLATE | |
| 360 | *3-596-569-01 | PLATE (S), RESET | |
| 361 | *3-596-571-01 | PLATE, SLIDE | |
| 362 | 3-596-572-01 | SPRING, SLIDE PLATE | |
| 363 | 7-627-554-68 | SCREW, PRECISION +P 2X5.5 TYPE1 | |
| 364 | *3-596-578-01 | BRACKET (B), SOLENOID | |
| 365 | 7-621-775-00 | SCREW +B 2.6X3 | |
| 366 | 3-596-586-01 | SCREW (M1.7X7) | |
| 367 | *3-596-574-01 | ARM ASSY, SELECT | |
| 368 | *3-596-575-01 | ARM ASSY, CHIP | |
| 369 | 3-596-576-01 | SPRING, CHIP ARM | |
| 370 | *3-596-577-01 | BRACKET, SWITCH | |

| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 371 | *3-596-573-01 | PLATE ASSY, POWER | |
| 372 | 7-624-101-01 | RING, RETAINING E-1.2 | |
| 373 | 3-596-548-01 | GEAR ASSY, EJ | |
| 374 | 3-596-549-01 | GEAR (A) | |
| 375 | 3-596-550-01 | GEAR ASSY, RVS | |
| 376 | 3-570-615-00 | POLY-WASHER (DIA.1.2) | |
| 377 | 3-596-552-01 | GEAR (B) | |
| 378 | 3-701-437-21 | WASHER | |
| 379 | 3-596-551-01 | TRIGGER, RVS | |
| 380 | 3-596-553-01 | GEAR (C) | |
| 381 | 3-596-554-01 | SPRING, RVS TRIGGER | |
| 382 | 3-701-436-21 | WASHER, POLYEHTHYLENE | |
| 383 | 3-596-555-01 | GEAR, MODE | |
| 384 | 3-596-558-01 | ROLLER, MODE | |
| 385 | 7-621-772-00 | SCREW +B 2X3 | |
| 386 | 3-596-559-01 | SPRING, STARTER | |
| 915 | *1-615-527-11 | PC BOARD, HEAD | |
| PM701 | 1-454-398-11 | SOLENOID, PLUNGER | |
| S702 | 1-570-249-11 | SWITCH, LEAF | |
| S703 | 1-570-250-11 | SWITCH, LEAF | |

## 8-6. TRANSPORT MECHANISM

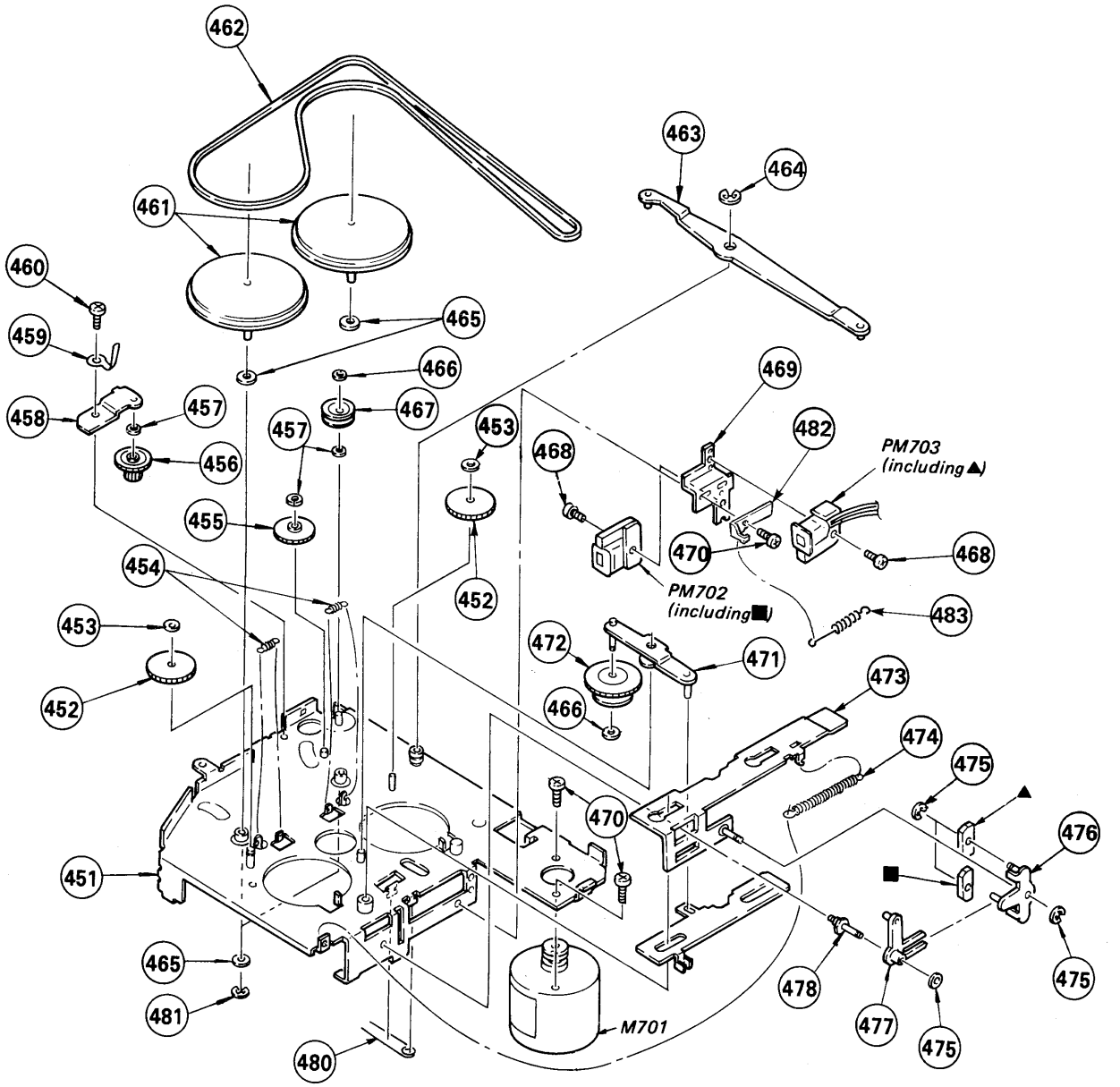
(FRONT)




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 401 | 7-624-101-01 | RING, RETAINING E-1.2 | |
| 402 | 3-596-512-01 | ROLLER (B), H/P | |
| 403 | 3-596-511-01 | ROLLER (A), H/P | |
| 404 | 3-596-505-01 | SPRING, BRAKE PLATE | |
| 405 | *3-596-503-01 | PLATE (R), BRAKE | |
| 406 | 7-624-106-04 | RING, RETAINING E-3 | |
| 407 | 3-596-524-01 | SPRING, P.R ARM (R) | |
| 408 | 7-624-102-04 | RING, RETAINING E-1.5 | |
| 409 | 3-596-523-01 | ARM (R) ASSY, P.R | |
| 410 | 3-596-507-01 | PLATE ASSY, HEAD | |
| 411 | 3-596-513-01 | SCREW | |
| 412 | 3-596-516-01 | SEAM, ADJUSTOR | |
| 413 | *3-596-517-01 | ARM, AZIMUTH | |
| 414 | 3-596-518-01 | LOCK (SPG), AZIMUTH | |
| 415 | 3-596-519-01 | SCREW, AZIMUTH | |
| 416 | 3-596-514-01 | SPRING, H/P | |
| 417 | 3-596-515-01 | ROLLER (C), H/P | |
| 418 | 3-596-521-01 | ARM (F) ASSY, P.R | |

| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 419 | 3-596-522-01 | SPRING, P.R ARM (F) | |
| 420 | 7-621-772-10 | SCREW +B 2X4 | |
| 421 | *3-493-875-00 | HOLDER, WIRE | |
| 422 | 3-596-520-01 | SPRING, AZIMUTH PLATE | |
| 423 | *3-596-502-01 | PLATE (F), BRAKE | |
| 424 | *3-596-506-01 | PLATE, RVS | |
| 425 | 3-596-510-01 | ROLLER, TIMING/A | |
| 426 | *3-596-508-01 | ARM ASSY, TIMING | |
| 427 | 3-596-509-01 | SPRING, TIMING ARM | |
| 428 | 3-701-436-11 | WASHER, 1.6 | |
| 430 | 3-596-544-01 | SPRING, REEL BUSHING | |
| 431 | 3-596-543-01 | BUSHING ASSY (PH), REEL | |
| 432 | 3-701-437-11 | WASHER | |
| 433 | *3-596-541-01 | BRACKET ASSY, REEL TABLE | |
| 434 | 7-621-775-00 | SCREW +B 2.6X3 | |
| 435 | 7-621-772-00 | SCREW +B 2X3 | |
| 914 | 3-596-542-01 | PWB ASSY, SWITCH (INCLUDE PH701, 702) | |
| HP701 | 1-543-248-11 | HEAD | |

## 8-7. TRANSPORT MECHANISM
(REAR)




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 451 | *3-596-504-01 | CHASSIS ASSY, MAIN | |
| 452 | 3-596-526-01 | GEAR, IDLER | |
| 453 | 3-570-615-00 | POLY-WASHER (DIA.1.2) | |
| 454 | 3-596-530-01 | SPRING, IDLER | |
| 455 | 3-596-527-01 | GEAR, DIA.15.2 | |
| 456 | 3-596-528-01 | GEAR, INPUT | |
| 457 | 3-701-437-11 | WASHER | |
| 458 | *3-596-529-01 | GUIDE, SHAFT, GEAR | |
| 459 | 7-623-507-01 | LUG, 2.6 | |
| 460 | 7-621-775-00 | SCREW +B 2.6X3 | |
| 461 | 3-596-546-01 | FLYWHEEL ASSY | |
| 462 | 3-596-582-01 | BELT | |
| 463 | *3-596-538-01 | ARM ASSY, POWER | |
| 464 | 7-624-106-04 | RING, RETAINING E-3 | |
| 465 | 3-590-770-31 | POLY-SLIDER (A) | |
| 466 | 3-701-436-21 | WASHER, POLYEHTHYLENE | |
| 467 | 3-596-531-01 | PULLEY ASSY, TENSION | |

| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 468 | 7-627-554-68 | SCREW, PRECISION +P 2X5.5 TYPE1 | |
| 469 | *3-596-580-01 | BRACKET (A), SOLENOID | |
| 470 | 7-621-772-00 | SCREW +B 2X3 | |
| 471 | *3-596-539-01 | ARM ASSY, FF | |
| 472 | 3-596-540-01 | GEAR ASSY, FF | |
| 473 | *3-596-533-01 | PLATE ASSY, MODE | |
| 474 | 3-596-535-01 | SPRING, MODE PLATE | |
| 475 | 7-624-102-04 | RING, RETAINING E-1.5 | |
| 476 | *3-596-537-01 | CRANK ASSY, T | |
| 477 | 3-596-536-01 | CRANK, FF | |
| 478 | *3-596-534-01 | SHAFT, FF CRANK | |
| 479 | *3-596-532-01 | PLATE, FF | |
| 480 | 3-596-525-01 | ARM (SPG), FF | |
| 481 | 3-590-768-00 | RING (A), E | |
| M701 | 3-596-501-01 | MOTOR ASSY | |
| PM702 | 1-454-398-11 | SOLENOID, PLUNGER | |
| PM703 | 1-454-398-11 | SOLENOID, PLUNGER | |

# SECTION 9
# ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC,
UPD...: μPD...

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| 901 | *1-621-943-11 | PC BOARD, INDICATOR | | | |
| 902 | *A-3279-665-A | MOUNTED PCB, TONE | | | |
| 903 | *1-621-942-11 | PC BOARD, VOLUME | | | |
| 904 | *A-3260-562-A | MOUNTED PCB, MAIN | | | |
| 905 | *A-3266-380-A | MOUNTED PCB, TUNER | | | |
| 906 | *A-3270-395-A | MOUNTED PCB, POWER AMPLIFIER | | | |
| 907 | *A-3279-666-A | MOUNTED PCB, MD SYSTEM CONTROL | | | |
| 908 | *1-621-945-11 | PC BOARD, FILTER | | | |
| 909 | *1-559-151-11 | CORD (WITH TERMINAL) | | | |
| 910 | *1-559-152-11 | CORD (WITH TERMINAL) | | | |
| 911 | *1-559-150-11 | CORD (WITH TERMINAL) | | | |
| 912 | 1-533-193-11 | HOLDER, FUSE | | | |
| 913 | *1-533-185-11 | HOLDER, FUSE | | | |
| 914 | 3-596-542-01 | PWB ASSY, SWITCH (INCLUDE PH701, 702) | | | |
| 915 | *1-615-527-11 | PC BOARD, HEAD | | | |
| C1 | 1-163-165-00 | CERAMIC MELF | 22PF | 5% | 50V |
| C2 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C3 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C4 | 1-124-236-00 | ELECT | 47MF | 20% | 10V |
| C5 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C6 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C7 | 1-124-257-00 | ELECT | 2.2MF | 20% | 50V |
| C8 | 1-124-236-00 | ELECT | 47MF | 20% | 10V |
| C9 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C10 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C12 | 1-163-189-00 | CERAMIC MELF | 220PF | 10% | 50V |
| C13 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C14 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C15 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C16 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C17 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C18 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C19 | 1-163-169-00 | CERAMIC MELF | 33PF | 5% | 50V |
| C20 | 1-163-169-00 | CERAMIC MELF | 33PF | 5% | 50V |
| C21 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C22 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C101 | 1-124-462-00 | ELECT | 10MF | 20% | 6.3V |
| C102 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C103 | 1-130-491-00 | FILM | 0.047MF | 5% | 50V |
| C104 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C105 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C106 | 1-161-056-00 | CERAMIC | 0.027MF | 10% | 25V |
| C107 | 1-124-222-00 | ELECT | 22MF | 20% | 6.3V |
| C108 | 1-124-234-00 | ELECT | 22MF | 20% | 10V |
| C109 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C110 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C111 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C112 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C113 | 1-124-236-00 | ELECT | 47MF | 20% | 10V |
| C114 | 1-124-465-00 | ELECT | 0.47MF | 20% | 50V |
| C115 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C116 | 1-163-053-00 | CERAMIC MELF | 0.0033MF | 30% | 16V |
| C117 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C118 | 1-130-487-00 | FILM | 0.022MF | 5% | 50V |
| C119 | 1-163-057-00 | CERAMIC MELF | 0.0068MF | 30% | 16V |
| C120 | 1-163-057-00 | CERAMIC MELF | 0.0068MF | 30% | 16V |
| C121 | 1-163-197-00 | CERAMIC MELF | 470PF | 10% | 50V |
| C122 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C123 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C201 | 1-130-491-00 | FILM | 0.047MF | 5% | 50V |
| C202 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C203 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C204 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C205 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C206 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C207 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C209 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C210 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C211 | 1-163-165-00 | CERAMIC MELF | 22PF | 5% | 50V |
| C212 | 1-163-163-00 | CERAMIC MELF | 18PF | 5% | 50V |
| C213 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C214 | 1-124-442-00 | ELECT | 330MF | 20% | 6.3V |
| C215 | 1-163-189-00 | CERAMIC MELF | 220PF | 10% | 50V |
| C216 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C218 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C219 | 1-124-229-00 | ELECT | 33MF | 20% | 10V |
| C220 | 1-124-222-00 | ELECT | 22MF | 20% | 6.3V |
| C221 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C222 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C224 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C225 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C226 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C227 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C228 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C229 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C230 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C231 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C232 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C301 | 1-130-469-00 | FILM | 680PF | 5% | 50V |
| C302 | 1-124-462-00 | ELECT | 10MF | 20% | 6.3V |
| C303 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C304 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C305 | 1-130-491-00 | FILM | 0.047MF | 5% | 50V |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C306 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C307 | 1-136-383-00 | FILM | 0.01MF | 5% | 50V |
| C308 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C309 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C310 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C311 | 1-136-383-00 | FILM | 0.01MF | 5% | 50V |
| C312 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C313 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C314 | 1-124-462-00 | ELECT | 10MF | 20% | 16V |
| C315 | 1-124-462-00 | ELECT | 10MF | 20% | 6.3V |
| C316 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C317 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C318 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C319 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C320 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C321 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C322 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C323 | 1-124-222-00 | ELECT | 22MF | 20% | 6.3V |
| C324 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C325 | 1-124-222-00 | ELECT | 22MF | 20% | 6.3V |
| C326 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C328 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C329 | 1-124-236-00 | ELECT | 47MF | 20% | 10V |
| C331 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C332 | 1-124-462-00 | ELECT | 10MF | 20% | 10V |
| C334 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C335 | 1-124-462-00 | ELECT | 10MF | 20% | 16V |
| C336 | 1-124-462-00 | ELECT | 10MF | 20% | 10V |
| C337 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C338 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C339 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C340 | 1-124-465-00 | ELECT | 0.47MF | 20% | 50V |
| C341 | 1-124-465-00 | ELECT | 0.47MF | 20% | 50V |
| C342 | 1-130-487-00 | FILM | 0.022MF | 5% | 50V |
| C350 | 1-102-106-00 | CERAMIC | 100PF | 10% | 50V |
| C361 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C362 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C363 | 1-163-165-00 | CERAMIC MELF | 22PF | 5% | 50V |
| C364 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C365 | 1-130-479-00 | FILM | 0.0047MF | 5% | 50V |
| C366 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C367 | 1-130-484-00 | FILM | 0.012MF | 5% | 50V |
| C368 | 1-136-392-00 | FILM | 0.068MF | 5% | 50V |
| C369 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C370 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C371 | 1-124-462-00 | ELECT | 10MF | 20% | 16V |
| C372 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C373 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C374 | 1-124-236-00 | ELECT | 47MF | 20% | 10V |
| C375 | 1-130-491-00 | FILM | 0.047MF | 5% | 50V |
| C401 | 1-130-469-00 | FILM | 680PF | 5% | 50V |
| C402 | 1-124-462-00 | ELECT | 10MF | 20% | 6.3V |
| C403 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C404 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C405 | 1-130-491-00 | FILM | 0.047MF | 5% | 50V |
| C406 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C407 | 1-136-383-00 | FILM | 0.01MF | 5% | 50V |
| C408 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C409 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C410 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C411 | 1-136-383-00 | FILM | 0.01MF | 5% | 50V |
| C412 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C413 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C415 | 1-124-462-00 | ELECT | 10MF | 20% | 6.3V |
| C416 | 1-163-181-00 | CERAMIC MELF | 100PF | 10% | 50V |
| C417 | 1-124-245-00 | ELECT | 4.7MF | 20% | 16V |
| C419 | 1-124-257-00 | ELECT | 2.2MF | 20% | 35V |
| C461 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C462 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C463 | 1-163-165-00 | CERAMIC MELF | 22PF | 5% | 50V |
| C464 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C465 | 1-130-479-00 | FILM | 0.0047MF | 5% | 50V |
| C466 | 1-130-489-00 | FILM | 0.033MF | 5% | 50V |
| C467 | 1-130-484-00 | FILM | 0.012MF | 5% | 50V |
| C468 | 1-136-392-00 | FILM | 0.068MF | 5% | 50V |
| C469 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C470 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C473 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C501 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C502 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C503 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C504 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C505 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C506 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C507 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C508 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C509 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C510 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C511 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C512 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C513 | 1-136-366-00 | FILM | 0.1MF | 5% | 50V |
| C514 | 1-123-321-00 | ELECT | 220MF | 20% | 16V |
| C515 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C516 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C517 | 1-124-236-00 | ELECT | 47MF | 20% | 16V |
| C518 | 1-124-236-00 | CAP, ELECT | 47MF | 20% | 16V |
| C519 | 1-163-189-00 | CERAMIC MELF | 220PF | 10% | 50V |
| C520 | 1-163-197-00 | CERAMIC MELF | 470PF | 10% | 50V |
| C551 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C552 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C553 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C554 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C555 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C556 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C557 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C558 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C559 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C560 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C561 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C562 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C563 | 1-136-366-00 | FILM | 0.1MF | 5% | 50V |
| C564 | 1-123-321-00 | ELECT | 220MF | 20% | 16V |
| C570 | 1-163-197-00 | CERAMIC MELF | 470PF | 10% | 50V |
| C601 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C602 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C603 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C604 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C605 | 1-163-059-00 | CERAMIC MELF | 0 01MF | 30% | 16V |
| C606 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C607 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C608 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C609 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C610 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C611 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C612 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C613 | 1-136-366-00 | FILM | 0.1MF | 5% | 50V |
| C614 | 1-123-321-00 | ELECT | 220MF | 20% | 16V |
| C620 | 1-163-197-00 | CERAMIC MELF | 470PF | 10% | 50V |
| C651 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C652 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C653 | 1-163-205-00 | CERAMIC MELF | 0.001MF | 10% | 50V |
| C654 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C655 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C656 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C657 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C658 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C659 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C660 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C661 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C662 | 1-130-499-00 | MYLAR | 0.22MF | 5% | 50V |
| C663 | 1-136-366-00 | FILM | 0.1MF | 5% | 50V |
| C664 | 1-123-321-00 | ELECT | 220MF | 20% | 16V |
| C701 | 1-124-119-00 | ELECT | 330MF | 20% | 16V |
| C702 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C703 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C704 | 1-124-222-00 | ELECT | 22MF | 20% | 6.3V |
| C705 | 1-130-480-00 | FILM | 0.0056MF | 5% | 50V |
| C706 | 1-124-438-00 | ELECT | 1MF | 20% | 50V |
| C707 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C708 | 1-124-437-00 | ELECT | 2.2MF | 20% | 35V |
| C709 | 1-124-437-00 | ELECT | 2.2MF | 20% | 35V |
| C710 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C711 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C712 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C713 | 1-163-059-00 | CERAMIC MELF | 0.01MF | 30% | 16V |
| C901 | 1-123-333-00 | ELECT | 100MF | 20% | 16V |
| C902 | 1-123-566-00 | ELECT | 2200MF | 20% | 16V |
| C903 | 1-123-566-00 | ELECT | 2200MF | 20% | 16V |
| CF1 | 1-527-344-91 | FILTER, CERAMIC | | | |
| CNJ1 | *1-559-155-11 | CORD (WITH CONNECTOR) | | | |
| CNJ301 | *1-559-148-11 | CORD (WITH JACK)(AUX IN) | | | |
| CNJ302 | *1-559-149-11 | CORD (WITH JACK)(LINE OUT) | | | |
| CNJ901 | *1-559-147-11 | CORD (WITH CONNECTOR) | | | |
| CNP101 | *1-564-001-11 | PIN, CONNECTOR 2P | | | |
| CNP102 | *1-564-008-51 | PIN, CONNECTOR 9P | | | |
| CNP103 | 1-564-013-00 | PIN, CONNECTOR 3P | | | |
| CNP104 | *1-564-009-51 | PIN, CONNECTOR 10P | | | |
| CNP201 | *1-562-992-11 | SOCKET, CONNECTOR 26P | | | |
| CNP301 | *1-559-154-11 | CORD (WITH JACK)(LINE IN) | | | |
| CNP501 | *1-564-007-00 | PIN, CONNECTOR 8P | | | |
| CNP502 | *1-564-002-00 | PIN, CONNECTOR 3P | | | |
| CNP503 | *1-564-005-51 | PIN, CONNECTOR 6P | | | |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| CNP701 | *1-564-011-51 | PIN, CONNECTOR 12P |
| CNP801 | *1-564-022-00 | PIN, CONNECTOR 12P |
| CNP803 | *1-564-019-11 | PIN, CONNECTOR 9P |
| CNP804 | *1-564-011-51 | PIN, CONNECTOR 12P |
| CNP901 | 1-566-448-11 | CONNECTOR |
| D1 | 8-719-911-19 | DIODE 1SS119 |
| D2 | 8-719-911-19 | DIODE 1SS119 |
| D101 | 8-719-110-43 | DIODE RD16ES-B |
| D102 | 8-719-110-43 | DIODE RD16ES-B |
| D104 | 8-719-911-19 | DIODE 1SS119 |
| D105 | 8-719-911-19 | DIODE 1SS119 |
| D106 | 8-719-911-19 | DIODE 1SS119 |
| D107 | 8-719-911-19 | DIODE 1SS119 |
| D108 | 8-719-911-19 | DIODE 1SS119 |
| D109 | 8-719-911-19 | DIODE 1SS119 |
| D110 | 8-719-911-19 | DIODE 1SS119 |
| D201 | 8-719-911-19 | DIODE 1SS119 |
| D206 | 8-719-911-19 | DIODE 1SS119 |
| D209 | 8-719-911-19 | DIODE 1SS119 |
| D210 | 8-719-911-19 | DIODE 1SS119 |
| D211 | 8-719-911-19 | DIODE 1SS119 |
| D213 | 8-719-911-06 | DIODE 1SS106 |
| D214 | 8-719-911-19 | DIODE 1SS119 |
| D215 | 8-719-911-19 | DIODE 1SS119 |
| D216 | 8-719-911-19 | DIODE 1SS119 |
| D217 | 8-719-911-19 | DIODE 1SS119 |
| D218 | 8-719-911-19 | DIODE 1SS119 |
| D219 | 8-719-911-19 | DIODE 1SS119 |
| D220 | 8-719-911-19 | DIODE 1SS119 |
| D221 | 8-719-911-19 | DIODE 1SS119 |
| D222 | 8-719-911-19 | DIODE 1SS119 |
| D224 | 8-719-109-87 | DIODE RD5.6ES-B |
| D225 | 8-719-911-19 | DIODE 1SS119 |
| D226 | 8-719-911-19 | DIODE 1SS119 |
| D227 | 8-719-911-19 | DIODE 1SS119 |
| D228 | 8-719-911-19 | DIODE 1SS119 |
| D229 | 8-719-911-19 | DIODE 1SS119 |
| D230 | 8-719-911-19 | DIODE 1SS119 |
| D231 | 8-719-109-92 | DIODE RD6.2ES-B1 |
| D232 | 8-719-109-88 | DIODE RD5.6ES-B1 |
| D233 | 8-719-110-17 | DIODE RD10ES-B2 |
| D235 | 8-719-110-17 | DIODE RD10ES-B2 |
| D237 | 8-719-200-02 | DIODE 10E-2 |
| D238 | 8-719-109-88 | DIODE RD5.6ES-B1 |
| D239 | 8-719-911-19 | DIODE 1SS119 |
| D301 | 8-719-911-19 | DIODE 1SS119 |
| D302 | 8-719-911-19 | DIODE 1SS119 |
| D303 | 8-719-911-19 | DIODE 1SS119 |
| D304 | 8-719-929-01 | DIODE HZS6.8N-B2 |
| D305 | 8-719-109-68 | DIODE RD3.6ES-B1 |
| D306 | 8-719-911-19 | DIODE 1SS119 |
| D307 | 8-719-911-19 | DIODE 1SS119 |
| D308 | 8-719-109-88 | DIODE RD5.6ES-B1 |
| D309 | 8-719-911-19 | DIODE 1SS119 |
| D401 | 8-719-911-19 | DIODE 1SS119 |
| D402 | 8-719-911-19 | DIODE 1SS119 |

REVISED

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| D403 | 8-719-911-19 | DIODE 1SS119 |
| D501 | 8-719-200-02 | DIODE 10E-2 |
| D502 | 8-719-110-17 | DIODE RD10ES-B2 |
| D701 | 8-719-200-02 | DIODE 10E-2 |
| D702 | 8-719-200-02 | DIODE 10E-2 |
| D703 | 8-719-933-08 | DIODE DAN201 |
| D704 | 8-719-911-19 | DIODE 1SS119 |
| D705 | 8-719-911-19 | DIODE 1SS119 |
| D706 | 8-719-911-19 | DIODE 1SS119 |
| D707 | 8-719-911-19 | DIODE 1SS119 |
| D708 | 8-719-911-19 | DIODE 1SS119 |
| D709 | 8-719-911-19 | DIODE 1SS119 |
| D710 | 8-719-911-19 | DIODE 1SS119 |
| D711 | 8-719-110-05 | DIODE RD8.2ES-B |
| D712 | 8-719-911-19 | DIODE 1SS119 |
| D713 | 8-719-911-19 | DIODE 1SS119 |
| D714 | 8-719-911-19 | DIODE 1SS119 |
| D801 | 8-719-404-22 | DIODE LN1451C |
| D802 | 8-719-404-22 | DIODE LN1451C |
| D803 | 8-719-404-22 | DIODE LN1451C |
| D804 | 8-719-404-22 | DIODE LN1451C |
| D805 | 8-719-404-22 | DIODE LN1451C |
| D806 | 8-719-404-22 | DIODE LN1451C |
| D807 | 8-719-404-22 | DIODE LN1451C |
| D808 | 8-719-404-22 | DIODE LN1451C |
| D809 | 8-719-404-22 | DIODE LN1451C |
| D810 | 8-719-404-22 | DIODE LN1451C |
| D811 | 8-719-404-22 | DIODE LN1451C |
| D812 | 8-719-404-22 | DIODE LN1451C |
| D813 | 8-719-404-22 | DIODE LN1451C |
| D814 | 8-719-404-22 | DIODE LN1451C |
| D815 | 8-719-404-22 | DIODE LN1451C |
| D816 | 8-719-404-22 | DIODE LN1451C |
| D817 | 8-719-945-08 | DIODE BR4868K |
| D818 | 8-719-945-08 | DIODE BR4868K |
| D819 | 8-719-945-08 | DIODE BR4868K |
| D820 | 8-719-945-08 | DIODE BR4868K |
| D901 | 8-719-911-55 | DIODE U05G |
| D902 | 8-719-911-55 | DIODE U05G |
| F901 | 1-532-360-XX | FUSE 1A |
| F902 | 1-532-877-11 | FUSE (BRADE TYPE) (AUTO FUSE) 10A |
| F903 | 1-532-360-XX | FUSE 1A |
| FE1 | 1-463-839-11 | FRONT END |
| FE2 | 1-463-605-11 | TUNER UNIT, AM |
| IC1 | 8-759-811-40 | IC LA1140 |
| IC101 | 1-807-501-11 | IC STK3400 (50US) |
| IC201 | 8-759-142-17 | IC UPD1708AG783-00 |
| IC301 | 8-759-800-36 | IC LA3160 |
| IC302 | 8-759-908-08 | IC CX20085 |
| IC303 | 8-759-100-96 | IC UPC4558G2 |
| IC304 | 8-759-605-04 | IC M5280P |
| IC305 | 8-759-905-47 | IC BA338 |
| IC361 | 8-759-100-96 | IC UPC4558G2 |
| IC501 | 8-759-206-95 | IC TA7280P |
| IC502 | 8-759-206-94 | IC TA7281P |
| IC601 | 8-759-206-94 | IC TA7281P |
| IC602 | 8-759-206-95 | IC TA7280P |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| IC701 | 8-759-207-77 | IC TC9312N-040 | | | |
| IC702 | 8-759-645-16 | IC M54516P | | | |
| IC703 | 8-759-240-69 | IC TC4069UBP | | | |
| JW101 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW102 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW103 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW104 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW105 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW106 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW107 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW108 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW109 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW110 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW111 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW112 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW113 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW114 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW115 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW116 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW117 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW118 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW119 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW120 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW121 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW122 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW123 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW124 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW125 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW126 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW127 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW128 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW129 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW130 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW131 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW132 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW133 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW134 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW135 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW136 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW137 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW138 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW139 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW202 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW203 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW204 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW205 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW206 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW207 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW208 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW361 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW362 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW363 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW364 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW365 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW366 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW502 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW503 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |
| JW751 | 1-249-366-11 | CARBON MELF | 0 | 5% | 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| JW752 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW753 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW754 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW755 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW756 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW757 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW758 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| JW759 | 1-249-366-11 | CARBON MELF 0 5% 1/5W |
| L2 | 1-410-316-11 | MICRO INDUCTOR 1UH |
| L3 | 1-410-324-11 | MICRO INDUCTOR 4.7UH |
| L101 | 1-410-324-11 | MICRO INDUCTOR 4.7UH |
| L103 | 1-410-324-11 | MICRO INDUCTOR 4.7UH |
| L201 | 1-410-334-11 | MICRO INDUCTOR 100UH |
| L501 | 1-410-334-11 | MICRO INDUCTOR 100UH |
| L701 | 1-408-111-00 | MICRO INDUCTOR 3.3UH |
| L901 | 1-459-123-00 | COIL,DUST CORE(PAC) |
| L902 | 1-421-369-00 | COIL, CHOKE |
| LCD1 | 1-807-808-11 | LIQUID CRYSTAL DISPLAY |
| PH701 | 3-596-542-01 | PWB ASSY, SWITCH (INCLUDE PH) |
| PH702 | 3-596-542-01 | PWB ASSY, SWITCH (INCLUDE PH) |
| PL201 | 1-518-580-31 | LAMP, PILOT |
| PL801 | 1-518-620-11 | LAMP, PILOT |
| Q1 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| Q2 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q3 | 8-729-100-12 | TRANSISTOR 2SC2001-L |
| Q101 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q102 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| Q103 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| Q104 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q105 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q106 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q201 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q202 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q203 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q204 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q205 | 8-729-883-91 | TRANSISTOR 2SC2839-D |
| Q206 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q207 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q208 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q209 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q210 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q212 | 8-729-901-63 | TRANSISTOR 2SB909M |
| Q213 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q214 | 8-729-901-63 | TRANSISTOR 2SB909M |
| Q215 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q216 | 8-729-901-63 | TRANSISTOR 2SB909M |
| Q217 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q218 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q219 | 8-729-900-63 | TRANSISTOR DTA124ES |
| Q220 | 8-729-900-61 | TRANSISTOR DTA114ES |
| Q221 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q222 | 8-729-900-61 | TRANSISTOR DTA114ES |
| Q224 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q225 | 8-729-497-32 | TRANSISTOR 2SD973 |
| Q226 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q227 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q229 | 8-729-497-32 | TRANSISTOR 2SD973 |
| Q230 | 8-729-901-63 | TRANSISTOR 2SB909M |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| Q301 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q302 | 8-729-811-24 | TRANSISTOR 2SD1012 |
| Q305 | 8-729-811-24 | TRANSISTOR 2SD1012 |
| Q306 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q307 | 8-729-900-61 | TRANSISTOR DTA114ES |
| Q308 | 8-729-900-89 | TRANSISTOR DTC144ES |
| Q309 | 8-729-900-61 | TRANSISTOR DTA114ES |
| Q310 | 8-729-900-36 | TRANSISTOR DTC124ES |
| Q311 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q312 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| Q313 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q314 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| Q361 | 8-729-207-35 | TRANSISTOR 2SJ105-Y |
| Q362 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q401 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q402 | 8-729-811-24 | TRANSISTOR 2SD1012 |
| Q405 | 8-729-811-24 | TRANSISTOR 2SD1012 |
| Q461 | 8-729-207-35 | TRANSISTOR 2SJ105-Y |
| Q462 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q501 | 8-729-180-92 | TRANSISTOR 2SD809-K |
| Q701 | 8-729-988-12 | TRANSISTOR 2SA881 |
| Q702 | 8-729-905-53 | TRANSISTOR 2SD1055-R |
| Q703 | 8-729-900-63 | TRANSISTOR DTA124ES |
| R1 | 1-215-422-00 | CARBON MELF 1.1K 5% 1/5W |
| R2 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R3 | 1-249-441-11 | CARBON MELF 100K 5% 1/5W |
| R5 | 1-249-411-11 | CARBON MELF 330 5% 1/5W |
| R6 | 1-249-393-11 | CARBON MELF 10 5% 1/5W |
| R7 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R8 | 1-249-433-11 | CARBON MELF 22K 5% 1/5W |
| R9 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R10 | 1-249-441-11 | CARBON MELF 100K 5% 1/5W |
| R11 | 1-249-435-11 | CARBON MELF 33K 5% 1/5W |
| R12 | 1-249-437-11 | CARBON MELF 47K 5% 1/5W |
| R14 | 1-249-439-11 | CARBON MELF 68K 5% 1/5W |
| R15 | 1-249-431-11 | CARBON MELF 15K 5% 1/5W |
| R16 | 1-249-422-11 | CARBON MELF 2.7K 5% 1/5W |
| R17 | 1-249-405-11 | CARBON MELF 100 5% 1/5W |
| R101 | 1-249-425-11 | CARBON MELF 4.7K 5% 1/5W |
| R102 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R103 | 1-249-417-11 | CARBON MELF 1K 5% 1/5W |
| R104 | 1-249-417-11 | CARBON MELF 1K 5% 1/5W |
| R105 | 1-249-441-11 | CARBON MELF 100K 5% 1/5W |
| R107 | 1-249-441-11 | CARBON MELF 100K 5% 1/5W |
| R108 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R109 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R110 | 1-249-411-11 | CARBON MELF 330 5% 1/5W |
| R111 | 1-249-423-11 | CARBON MELF 3.3K 5% 1/5W |
| R112 | 1-249-433-11 | CARBON MELF 22K 5% 1/5W |
| R113 | 1-249-417-11 | CARBON MELF 1K 5% 1/5W |
| R114 | 1-249-417-11 | CARBON MELF 1K 5% 1/5W |
| R115 | 1-215-479-00 | CARBON MELF 270K 5% 1/5W |
| R116 | 1-249-437-11 | CARBON MELF 47K 5% 1/5W |
| R117 | 1-249-429-11 | CARBON MELF 10K 5% 1/5W |
| R118 | 1-249-433-11 | CARBON MELF 22K 5% 1/5W |
| R119 | 1-249-413-11 | CARBON MELF 470 5% 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R120 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R121 | 1-249-432-11 | CARBON MELF | 18K | 5% | 1/5W |
| R122 | 1-249-393-11 | CARBON MELF | 10 | 5% | 1/5W |
| R123 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R124 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R125 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R126 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R127 | 1-249-434-11 | CARBON MELF | 27K | 5% | 1/5W |
| R128 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R129 | 1-249-434-11 | CARBON MELF | 27K | 5% | 1/5W |
| R130 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R131 | 1-249-437-11 | CARBON | 47K | 5% | 1/6W |
| R132 | 1-249-437-11 | CARBON | 47K | 5% | 1/6W |
| R133 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R134 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R135 | 1-249-035-00 | CARBON MELF | 680 | 5% | 1/5W |
| R136 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R137 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R138 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R139 | 1-249-879-00 | CARBON | 100K | 5% | 1/6W |
| R140 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R141 | 1-249-393-11 | CARBON | 10 | 5% | 1/6W |
| R142 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R201 | 1-215-493-00 | CARBON MELF | 1M | 5% | 1/5W |
| R202 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R203 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R204 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R205 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R206 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R207 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R208 | 1-249-419-11 | CARBON MELF | 1.5K | 5% | 1/5W |
| R209 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R210 | 1-249-431-11 | CARBON MELF | 15K | 5% | 1/5W |
| R215 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R216 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R217 | 1-247-891-00 | CARBON | 330K | 5% | 1/6W |
| R218 | 1-247-891-00 | CARBON | 330K | 5% | 1/6W |
| R219 | 1-247-891-00 | CARBON | 330K | 5% | 1/6W |
| R220 | 1-247-891-00 | CARBON | 330K | 5% | 1/6W |
| R221 | 1-247-891-00 | CARBON | 330K | 5% | 1/6W |
| R222 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R223 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R224 | 1-249-405-11 | CARBON MELF | 100 | 5% | 1/5W |
| R225 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R226 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R227 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R228 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R229 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R230 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R231 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R232 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R233 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R234 | 1-249-393-11 | CARBON | 10 | 5% | 1/6W |
| R235 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R236 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R237 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R238 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R239 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R240 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R241 | 1-249-417-11 | CARBON | 1K | 5% | 1/6W |
| R242 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R243 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R244 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R245 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R247 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R248 | 1-249-439-11 | CARBON MELF | 68K | 5% | 1/5W |
| R249 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R250 | 1-244-835-00 | CARBON | 27 | 5% | 1/2W |
| R251 | 1-249-413-11 | CARBON MELF | 470 | 5% | 1/5W |
| R252 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R253 | 1-249-419-11 | CARBON MELF | 1.5K | 5% | 1/5W |
| R254 | 1-249-421-11 | CARBON MELF | 2.2K | 5% | 1/5W |
| R255 | 1-247-733-11 | CARBON | 33 | 5% | 1/2W |
| R256 | 1-247-740-11 | CARBON | 120 | 5% | 1/2W |
| R257 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R258 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R259 | 1-249-439-11 | CARBON MELF | 68K | 5% | 1/5W |
| R260 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R261 | 1-249-402-11 | CARBON MELF | 56 | 5% | 1/5W |
| R301 | 1-249-402-11 | CARBON MELF | 56 | 5% | 1/5W |
| R302 | 1-249-424-11 | CARBON MELF | 3.9K | 5% | 1/5W |
| R303 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R304 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R305 | 1-215-424-00 | CARBON MELF | 1.3K | 5% | 1/5W |
| R306 | 1-249-419-11 | CARBON MELF | 1.5K | 5% | 1/5W |
| R307 | 1-215-487-00 | CARBON MELF | 560K | 5% | 1/5W |
| R308 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R309 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R310 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R311 | 1-215-424-00 | CARBON MELF | 1.3K | 5% | 1/5W |
| R312 | 1-215-442-00 | CARBON MELF | 7.5K | 5% | 1/5W |
| R313 | 1-215-478-00 | CARBON MELF | 240K | 5% | 1/5W |
| R314 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R315 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R316 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R317 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R318 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R319 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R320 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R321 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R322 | 1-249-438-11 | CARBON MELF | 56K | 5% | 1/5W |
| R323 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R324 | 1-249-421-11 | CARBON MELF | 2.2K | 5% | 1/5W |
| R325 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R328 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R331 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R332 | 1-249-414-11 | CARBON MELF | 560 | 5% | 1/5W |
| R333 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R334 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R335 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R337 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R338 | 1-249-413-11 | CARBON MELF | 470 | 5% | 1/5W |
| R339 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R341 | 1-249-430-11 | CARBON MELF | 12K | 5% | 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R342 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R344 | 1-249-430-11 | CARBON MELF | 12K | 5% | 1/5W |
| R345 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R348 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R349 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R350 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R351 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R352 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R353 | 1-215-477-00 | CARBON MELF | 220K | 5% | 1/5W |
| R354 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R355 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R356 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/6W |
| R357 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R360 | 1-249-438-11 | CARBON MELF | 56K | 5% | 1/5W |
| R361 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R362 | 1-215-493-00 | CARBON MELF | 1M | 5% | 1/5W |
| R363 | 1-249-412-11 | CARBON MELF | 390 | 5% | 1/5W |
| R364 | 1-249-405-11 | CARBON MELF | 100 | 5% | 1/5W |
| R365 | 1-249-432-11 | CARBON MELF | 18K | 5% | 1/5W |
| R366 | 1-249-440-11 | CARBON MELF | 82K | 5% | 1/5W |
| R367 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/6W |
| R368 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R369 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R370 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R371 | 1-249-424-11 | CARBON MELF | 3.9K | 5% | 1/5W |
| R372 | 1-215-477-00 | CARBON MELF | 220K | 5% | 1/5W |
| R373 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R374 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R375 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R376 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R377 | 1-249-430-11 | CARBON MELF | 12K | 5% | 1/5W |
| R378 | 1-249-407-11 | CARBON MELF | 150 | 5% | 1/5W |
| R401 | 1-249-402-11 | CARBON MELF | 56 | 5% | 1/5W |
| R402 | 1-249-424-11 | CARBON MELF | 3.9K | 5% | 1/5W |
| R403 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R404 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R405 | 1-215-424-00 | CARBON MELF | 1.3K | 5% | 1/5W |
| R406 | 1-249-419-11 | CARBON MELF | 1.5K | 5% | 1/5W |
| R407 | 1-215-487-00 | CARBON MELF | 560K | 5% | 1/5W |
| R408 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R409 | 1-249-427-11 | CARBON MELF | 6.8K | 5% | 1/5W |
| R410 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R411 | 1-215-424-00 | CARBON MELF | 1.3K | 5% | 1/5W |
| R412 | 1-215-442-00 | CARBON MELF | 7.5K | 5% | 1/5W |
| R413 | 1-215-478-00 | CARBON MELF | 240K | 5% | 1/5W |
| R414 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R415 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R416 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R417 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R418 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R419 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R420 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R421 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R422 | 1-249-438-11 | CARBON MELF | 56K | 5% | 1/5W |
| R423 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R424 | 1-249-421-11 | CARBON MELF | 2.2K | 5% | 1/5W |
| R425 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R428 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R431 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R460 | 1-249-438-11 | CARBON MELF | 56K | 5% | 1/5W |
| R461 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R462 | 1-215-493-00 | CARBON MELF | 1M | 5% | 1/5W |
| R463 | 1-249-412-11 | CARBON MELF | 390 | 5% | 1/5W |
| R464 | 1-249-405-11 | CARBON MELF | 100 | 5% | 1/5W |
| R465 | 1-249-432-11 | CARBON MELF | 18K | 5% | 1/5W |
| R466 | 1-249-440-11 | CARBON MELF | 82K | 5% | 1/5W |
| R467 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/6W |
| R468 | 1-249-423-11 | CARBON MELF | 3.3K | 5% | 1/5W |
| R469 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R470 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R471 | 1-249-424-11 | CARBON MELF | 3.9K | 5% | 1/5W |
| R472 | 1-215-477-00 | CARBON MELF | 220K | 5% | 1/5W |
| R473 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R474 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R475 | 1-249-433-11 | CARBON MELF | 22K | 5% | 1/5W |
| R501 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R502 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R503 | 1-249-391-11 | CARBON MELF | 6.8 | 5% | 1/5W |
| R504 | 1-249-396-11 | CARBON MELF | 18 | 5% | 1/5W |
| R505 | 1-249-393-11 | CARBON MELF | 10 | 5% | 1/5W |
| R506 | 1-249-442-11 | CARBON MELF | 510 | 5% | 1/5W |
| R507 | 1-249-001-00 | CARBON MELF | 1 | 5% | 1/5W |
| R508 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R510 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R511 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R551 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R552 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R553 | 1-249-391-11 | CARBON MELF | 6.8 | 5% | 1/5W |
| R554 | 1-249-396-11 | CARBON MELF | 18 | 5% | 1/5W |
| R555 | 1-249-442-11 | CARBON MELF | 510 | 5% | 1/5W |
| R556 | 1-249-393-11 | CARBON MELF | 10 | 5% | 1/5W |
| R557 | 1-249-001-00 | CARBON MELF | 1 | 5% | 1/5W |
| R560 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R561 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R601 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R602 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R603 | 1-249-391-11 | CARBON MELF | 6.8 | 5% | 1/5W |
| R604 | 1-249-396-11 | CARBON MELF | 18 | 5% | 1/5W |
| R605 | 1-249-393-11 | CARBON MELF | 10 | 5% | 1/5W |
| R606 | 1-249-442-11 | CARBON MELF | 510 | 5% | 1/5W |
| R607 | 1-249-001-00 | CARBON MELF | 1 | 5% | 1/5W |
| R610 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R611 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R651 | 1-249-425-11 | CARBON MELF | 4.7K | 5% | 1/5W |
| R652 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R653 | 1-249-391-11 | CARBON MELF | 6.8 | 5% | 1/5W |
| R654 | 1-249-396-11 | CARBON MELF | 18 | 5% | 1/5W |
| R655 | 1-249-442-11 | CARBON MELF | 510 | 5% | 1/5W |
| R656 | 1-249-393-11 | CARBON MELF | 10 | 5% | 1/5W |
| R657 | 1-249-001-00 | CARBON MELF | 1 | 5% | 1/5W |
| R660 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R661 | 1-249-038-00 | CARBON MELF | 1.2K | 5% | 1/5W |
| R701 | 1-249-411-11 | CARBON MELF | 330 | 5% | 1/5W |
| R702 | 1-215-454-00 | CARBON MELF | 24K | 5% | 1/5W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R703 | 1-215-454-00 | CARBON MELF | 24K | 5% | 1/5W |
| R704 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R705 | 1-249-434-11 | CARBON MELF | 27K | 5% | 1/5W |
| R706 | 1-249-421-11 | CARBON MELF | 2.2K | 5% | 1/5W |
| R707 | 1-249-409-11 | CARBON MELF | 220 | 5% | 1/5W |
| R708 | 1-249-421-11 | CARBON MELF | 2.2K | 5% | 1/5W |
| R709 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R710 | 1-215-481-00 | CARBON MELF | 330K | 5% | 1/5W |
| R711 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R712 | 1-249-434-11 | CARBON MELF | 27K | 5% | 1/5W |
| R713 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R714 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R715 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R716 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R717 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R718 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R719 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R720 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R721 | 1-249-413-11 | CARBON MELF | 470 | 5% | 1/5W |
| R722 | 1-249-413-11 | CARBON MELF | 470 | 5% | 1/5W |
| R723 | 1-249-413-11 | CARBON MELF | 470 | 5% | 1/5W |
| R724 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R725 | 1-215-481-00 | CARBON MELF | 330K | 5% | 1/5W |
| R726 | 1-215-481-00 | CARBON MELF | 330K | 5% | 1/5W |
| R727 | 1-215-493-00 | CARBON MELF | 1M | 5% | 1/5W |
| R728 | 1-249-441-11 | CARBON MELF | 100K | 5% | 1/5W |
| R729 | 1-249-417-11 | CARBON MELF | 1K | 5% | 1/5W |
| R730 | 1-247-849-00 | CARBON MELF | 5.6K | 5% | 1/5W |
| R731 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R732 | 1-249-437-11 | CARBON MELF | 47K | 5% | 1/5W |
| R733 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R734 | 1-249-035-00 | CARBON MELF | 680 | 5% | 1/5W |
| R735 | 1-249-429-11 | CARBON MELF | 10K | 5% | 1/5W |
| R736 | 1-249-405-11 | CARBON MELF | 100 | 5% | 1/5W |
| R801 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R802 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R803 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R804 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R805 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R806 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R807 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| R808 | 1-249-415-11 | CARBON | 680 | 5% | 1/6W |
| RV101 | 1-228-997-00 | RES, ADJ, CARBON 100K | | | |
| RV102 | 1-228-999-00 | RES, ADJ, CARBON 470K | | | |
| RV103 | 1-230-271-00 | RES, ADJ, CARBON 4.7K | | | |
| RV301 | 1-230-524-11 | RES, ADJ, METAL GLAZE 22K | | | |
| RV302 | 1-237-587-11 | RES, VAR, SLIDE 100K/100K (BAS,TRE) | | | |
| RV361 | 1-237-640-11 | RES, VAR, CARBON 100KX3/50KX2 (VOL,PULL BAL,FAD,POWER) | | | |
| RV401 | 1-230-524-11 | RES, ADJ, METAL GLAZE 22K | | | |
| RY501 | 1-515-655-11 | RELAY | | | |
| SW801 | 1-554-813-31 | SWITCH, KEY BOARD (LOUD) | | | |
| SW802 | 1-554-813-31 | SWITCH, KEY BOARD (BAND) | | | |
| SW803 | 1-554-813-31 | SWITCH, KEY BOARD (SEEK) | | | |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| SW804 | 1-554-813-31 | SWITCH, KEY BOARD (1) |
| SW805 | 1-554-813-31 | SWITCH, KEY BOARD (4) |
| SW806 | 1-554-813-31 | SWITCH, KEY BOARD (2) |
| SW807 | 1-554-813-31 | SWITCH, KEY BOARD (5) |
| SW808 | 1-554-813-31 | SWITCH, KEY BOARD (3) |
| SW809 | 1-554-813-31 | SWITCH, KEY BOARD (6) |
| SW810 | 1-554-813-31 | SWITCH, KEY BOARD (MANUAL:-) |
| SW811 | 1-554-813-31 | SWITCH, KEY BOARD (MANUAL:+) |
| SW812 | 1-554-813-31 | SWITCH, KEY BOARD (DISP) |
| SW813 | 1-554-813-31 | SWITCH, KEY BOARD (MEM) |
| SW814 | 1-554-813-31 | SWITCH, KEY BOARD (DOLBY/MONO) |
| SW815 | 1-554-813-31 | SWITCH, KEY BOARD (METAL/LOCAL) |
| SW816 | 1-554-813-31 | SWITCH, KEY BOARD (FF) |
| SW817 | 1-554-813-31 | SWITCH, KEY BOARD (REW) |
| SW818 | 1-554-813-31 | SWITCH, KEY BOARD (STOP/EJECT) |
| SW819 | 1-554-813-31 | SWITCH, KEY BOARD (DIR) |
| SPC501*1 | 1-559-153-31 | CORD (WITH TERMINAL)(SPEAKER)(BLU/WHT) |
| SPC551*1 | 1-559-153-11 | CORD (WITH TERMINAL)(SPEAKER)(G WHT) |
| SPC601*1 | 1-559-153-41 | CORD (WITH TERMINAL)(SPEAKER)(BLU/RED) |
| SPC651*1 | 1-559-153-21 | CORD (WITH TERMINAL)(SPEAKER)(GRY/RED) |
| T1 | 1-404-463-00 | TRANSFORMER, DISCRIMINATOR |
| T2 | 1-404-468-00 | TRANSFORMER, DISCRIMINATOR |
| TP1 | 1-536-354-00 | POST PIN |
| TP2 | 1-536-354-00 | POST PIN |
| X101 | 1-567-250-11 | OSCILLATOR, CERAMIC |
| X201 | 1-567-713-11 | VIBRATOR, CRYSTAL (4.5MHz) |

ACCESSORY & PACKING MATERIAL

| Part No. | Description |
|---|---|
| 3-310-655-01 | SUPPORT (ND), FITTING |
| 3-323-219-01 | FRAME, FITTING |
| 3-332-133-01 | SCREW, STOPPER |
| 3-332-134-01 | SCREW, STEP |
| 3-332-154-01 | CUSHION |
| 3-332-153-01 | (US).....INDIVIDUAL CARTON |
| 3-332-156-01 | (Canadian)...INDIVIDUAL CARTON |
| 3-332-179-01 | SHEET, PROTECTION |
| 3-339-416-01 | COLLAR |
| 3-339-417-01 | COVER |
| 3-701-627-00 | BAG, POLYETHYLENE |
| 3-764-728-11 | (Canadian)...MANUAL, INSTRUCTION |
| 3-764-728-21 | (US).....MANUAL, INSTRUCTION |

**Sony Corporation**
**Audio Group**

9-952-718-11

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